Burdens Experienced by Nurses: Well-being and Coping Strategies during COVID-19

Binu Acharya, Monica Cheruto Ronoh

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Laurea University of Applied Sciences **Abstract**

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The aim of this study was to understand the experiences and well-being of nurses working in COVID-19 settings. The primary objective was to explore the burdens experienced by the nurses working with COVID-19 patients. The secondary objective was to understand the coping strategies of nurses while working with COVID-19 patients. The outbreak of COVID-19 in December 2019 was associated with a myriad of challenges to healthcare workers including nurses. They occupy the frontline in dealing with the COVID-19 pandemic and are at a risk of being exposed to various effects of COVID-19 that affect their well-being. This study analyses the burdens of COVID-19 on the well-being of nurses and discusses the suitable coping strategies and communication necessary in times of crisis.

This study used a qualitative approach in seeking answers to the research questions by exploring the experiences of nurses working in COVID-19 settings. The study was conducted at a psychogeriatric ward in a city hospital in the Helsinki region. Open-ended qualitative questionnaires were used for data collection. Thirteen nurses participated in the study. Thematic analysis was applied, and the themes were derived through inductive approach.

From the results of the analysis, five themes emerged. These included: a) emotional burdens, b) physical burdens, c) social burdens, d) coping strategies and e) communication during crisis. The results of this study indicated that many of the nurse participants were in dire need of assistance from their organization. During the COVID-19 crisis, it would have important to understand the nurses´ needs so that it would have been possible to offer meaningful organizational support to build their resilience and perseverance.

In conclusion, the COVID-19 pandemic brought many challenges to nurses that affected their health and well-being. The burdens caused by the pandemic were cited as critical components that increased the challenges faced by the organization. Occupational well-being and safety were overlooked in the COVID–19 crisis. On the other hand, nurses took a positive initiative to cope with the pandemic through the support of their colleagues and their organization. This study recommends the healthcare sector to develop strategies that address the holistic well-being of nurses and other health care workers during and after crisis.

Key words: Nurses´ experiences, burdens, coping strategies, COVID-19, qualitative approach

Contents

1 Introduction

The outbreak of COVID-19 in December 2019 has been associated with a myriad of challenges, especially to the healthcare workers. They occupy the frontline in dealing with COVID-19 pandemics and are at increased risk of burdens led by COVID-19. Cases of mental health issues among these groups of individuals are associated with the excessive workload during healthcare pandemics. (World Health Organization 2020a.) Unpreparedness to handle the surging cases of the pandemic, and emotional distress associated with the fear of infection concerns include the fact that the disease is highly contagious with a low level of knowledge on the factors surrounding the infection. Lack of established vaccines or treatments to handle the outbreak is also other concern. (Pappa et al. 2020.)

According to (World Health Organization 2020b), nurses are the largest group of health professional in health sector. They play a crucial role in public health emergency in improving the public health, even though COVID-19 has put more burden on health systems and its impact is beyond description. Nurse's contributions and their vigilance in health promotion during epidemic outbreaks like influenza, Ebola, Zika had been seen in the past years. Currently, nurses are at the forefront of caring for COVID-19 patients in acute care settings. (World Health Organization 2020b.) In addition, they are engaged together with the interprofessional sectors, teams, and communities in this global pandemic preparedness and response (American Academy of Nursing on Policy 2018).

The burdens of COVID-19 pandemic are likely to have both short- and long-term impacts on healthcare workers even though, these healthcare workers are an important asset and infrastructure of the health sector. For a safe and continuous patient care, nurses´ health and safety play a crucial role during a control of any disease outbreak. However, the healthcare workers are under tremendous stress during the current pandemic. (Cabarkapa, Nadjidai, Murgier & Ng 2020.) Hence, a comprehensive support is needed for health care workers and nurses during pandemic crisis. To do so, it is necessary to gain insights and understand their lived experiences as well as the impacts of pandemic on them.

This study will bring an in-depth understanding on the experiences of the nurses working in hospitals during current pandemics of COVID-19 and its burden on them. The aim of this study was to understand the experiences and well-being of nurses working in COVID-19 settings. The primary objective of this study was to explore the burdens experienced by the nurses working with COVID-19 patients. The secondary objective of this study was to understand the coping strategies of nurses while working with COVID-19 patients. The literature review was conducted to illustrate the key concepts, which includes nurses´ experiences, burdens,

theories on crisis, psychodynamics, nursing resilience and coping strategies. Qualitative study approach was borrowed in this study because the writers of this research wanted to gain a deeper understanding of the nurses' experiences working with COVID-19 patients. To gain additional perspective on the study subject, qualitative questionnaires were formulated using open-ended questions and sent to the nurse participants working with COVID-19 patients. In addition, thematic analysis was applied to derive themes of the data collected. The themes that emerged from the data were used in the final report of this study.

2 Experiences of nurses working during crisis.

It is important to understand what the theories and literature is saying, about the experiences of nurses during crisis. In this chapter, we are going to explore on theories about crisis and previous literature review about the nurses' experiences in health crisis.

Crisis refers to a decisive stage that bears critical consequences in the future of an individual or a system. It also refers to an event or a situation perceived as an intolerable difficulty that exceeds the available resources and coping mechanisms of individuals or people. (Yeager & Roberts 2015, 12-14.) Theories have been used to explain nurses and other healthcare professionals' behaviour in the handling and management of the COVID-19 pandemic. An association between individual psychology and outward expression of behaviour was studied by various psychologists who came up with the psychodynamic theories. They believed that depression and other mental health issues expressed by individuals resulted from inwardly directed anger, severe superego demands, and the loss of self-esteem, among others. The psychodynamic theories handle a variety of human behaviours and reactions to various issues affecting their day-to-day lives. (Marčinko, Jakovljevic, Jaksic, Bjedov & Drakulic 2020.)

Psychodynamic theories are being applied to explain the reaction of the general population to the current coronavirus pandemic. The psychodynamic processes are critical in gaining an in-depth understanding necessary for the management of individual and group mental health issues in times of crisis. These include a clearer understanding of behaviours such as spreading panic, stigmatization, defensive reactions, as well as socially disruptive behaviour in times of such pandemics. (Uji 2020.)

Positive psychology, as defined by Seligman and Csikszentmihalyi (2000), is a positive subjective experience that aims in building positive individual qualities. The four different personal traits that contribute to positive psychology are subjective well-being, optimism, happiness, and self-determination. These subjective experiences refer to what people think and how they feel about their lives to the cognitive and affective conclusions they reach when they evaluate their existence. (Seligman & Csikszentmihalyi 2000.) Positive psychology

is different from humanistic psychology in a way that positive psychology observes both strength as well as weakness as an authentic and responsive to scientific understanding as described by (Peterson & Seligman 2004).

Optimism is more involved in cognitive, emotional, and motivational components according to the article published by Peterson (2000). The need for competence, need for belongingness and need for autonomy are central to the theory of self-determination and are investigated within the theory. When these needs are met, researcher claims that personal well-being and social development are optimized to a great extent. (Seligman & Csikszentmihalyi 2000.)

When seen from the perspective of positive psychology, an optimistic employee is more likely to practice good habits and work ethics that promotes his self-development in contrast to a pessimistic one. Positive psychology finds its way into prevention and therapy techniques that build positive traits, which creates positive subjective experiences. These experiences can be achieved through resilience. Fear of uncertainty can lead to anxiety or depression among workers. Positivity builds resilience and creates solutions to the problems by opening the awareness level. Practicing positive psychology helps the healthcare worker become more resilient and persistent. (Seligman & Csikszentmihalyi 2000.)

In the past decades, nurses have been in frontline during major hits of infectious disease outbreaks including H1N1, Swine Flu, Severe Acute Respiratory Syndrome SARS, Middle East Respiratory Syndrome (MERS) and Ebola (Fernandez et al. 2020). Similarly, the study done by Jung and Jun (2020), has found that nurses have been always the front liners and role model in infection control and prevention practices, and public health promotion. It has become obvious that nurses are working all around the clock providing hospital care to the affected ones. Public health nurses are shifted to acute care settings and leading a response team, demonstrating skills and expertise in emergency preparedness, predictive modelling, hospital, and field operations to deal with pandemic situation. Nurses have proved to be the greater asset however during crisis they are not exempted from experiencing accidental outcomes such as exposure to outbreaks, occupational stress, lethargy as well as psychological fatigue and trauma. (Jung & Jun 2020.)

According to the International Council of Nurses (2021), 90 million people had been already infected with the disease in the global level, resulting in 1.9 million deaths worldwide. In Mexico 21% nurses have been infected with COVID-19 whereas 45% of nurses were infected with COVID-19 in Iran. Both countries were hardly hit by COVID-19 shown by the report of (ICN 2021). This also depicts that nurse are the biggest work force in the health care sector across the globe. Research has shown that at least 1 in 5 healthcare workers are showing signs of depression and anxiety whereas 4 in 10 workers are experiencing insomnia with addition to

higher rate of anxiety and depression among female nursing staffs and health workers. (Pappa et al. 2020.)

According to a systematic literature review conducted by Pappa et al. (2020), the uneven and increased distribution of workload, physical exhaustion, lack of personal protective equipment, nosocomial transmission as well as the need to make ethically difficult decisions on the rationing of care have posed a tremendous effect on the physical and mental well-being of nurses. Isolation and loss of social support, risks of infecting loved ones and relatives as well as rapid changes in the working environment can further compromise the resilience of nurses leading them to be at a higher risk of experiencing a variety of psychological effects including acute stress disorder, depression, post-traumatic stress disorder, insomnia, irritability, anger, and emotional exhaustion following disease outbreak. (Pappa et al. 2020.)

Understanding the burdens of COVID-19 and experiences of nurses during the outbreak is crucial in policy formulation and interventions to maintain their health and well-being. In response to the COVID-19, millions of nurses are working as COVID-19 front liners. Considerable proportion of nurses are in psychological turmoil during outbreak hence there is an urgent need to establish support mechanisms and enhance the possible interventions for holistic well-being of nurses during pandemic situation. (Fernandez et al. 2020.)

2.1 Burdens of COVID-19 among nurses

According to the Oxford online dictionary (2021), meaning of burden is something oppressive or worrisome. Burdens can be the problems, difficulties and negative life events influencing the life of human beings. Frontline healthcare workers, including nurses, have been greatly affected by their role in managing the COVID-19 and the care of the affected individuals. Battling the disease in the frontline exposes' nurses to emotional distress. An analysis shows that nurses directly involved in the care of COVID-19 patients experience increased levels of depression, anxiety, stress, fear, anger, insomnia, and post-traumatic stress disorders. (Shaukat, Ali & Razzak 2020.)

Nurses must provide care to patients experiencing diverse symptoms while exposing themselves to infections. They are fearful of spreading the infection to their families once they are affected during their duties. Additionally, the lack of adequate facilities and personal protective equipment further exposes nurses to increased stress and anxiety. While the situation is overwhelming the healthcare workers, the control of the diseases is not yet feasible. Nurses and healthcare professionals are anxious about finding a cure or solution to this pandemic, and this further exposes them to increased levels of emotional stress. (Moreno et al. 2020.)

Cases of fear, anxiety, depression, psychological symptoms, and an overall decrease in healthcare professionals' well-being are observed during such disease outbreaks and pandemics. The unique characteristics of the current outbreak such as isolation, direct contact with infected individuals and high-risk working conditions are essential factors that could be associated with the mental health issues reported by nurses and other healthcare professionals dealing directly with the management of the pandemic globally. (Gavin, Hayden, Adamis & McNicholas 2020.)

Stelnicki, Carleton and Reichert (2020) showed sudden changes in the nursing environment include concerns associated with access to personal protective equipment, the risks of being exposed to the disease while taking care of patients, and the unavailable rapid access to testing characteristics in many nations and healthcare facilities. Uncertainties with the health care organizations and facilities' ability to take care of nurses in case they contract the disease have also been a significant source of anxiety among nursing professionals across the globe. Other causes of anxiety include the difficulties in the out-of-work lives of nurses, such as access to childcare following the closure of schools and the increasing family and personal needs due to increased pressure in the workplace. Nurses have also faced anxiety based on internal arrangements in the workplace that may call for transfers into unfamiliar working spaces and fields. This is due to the need to cover up the current gaps in the healthcare system. This is coupled with poor access to up-to-date communication and information necessary for decision making during patient care. (Stelnicki et al. 2020.)

According to the studies of psychological and mental well-being of healthcare workers, COVID-19 pandemic has shown an increase in anxiety, depression, and insomnia among nurses. This is associated with an increased workload as the number of patients significantly rises, the inadequacy of personal protective equipment, and the need to make ethical decisions despite the present dilemmas in the workplace. These factors have been cited as typical in contributing to the mental and psychological health issues facing nurses following the outbreak of the COVID-19 pandemic. (Pappa et al. 2020.)

Managing and caring for COVID-19 patients in healthcare settings present increasing challenges for nurses. This is likely to take a toll on the health and well-being of nurses. Fear and panic among the nursing staff has posed a great threat to their personal lives. In the course of their duties, nurses are anxious about their welfare and that of their families. Hence, fear and panic should be considered in nurse’s mental well-being in the management of healthcare pandemics. As they seek to contain the pandemic and offer quality care for all patients, nurses feel unsafe in the workplace as well as increased fear of infecting their families following exposure to the highly infectious disease. (Ho, Chee & Ho 2020.)

Nurses are exposed to numerous hazards in association with their daily activities in the workplace. COVID-19 is highly infectious disease, and this has brought excessive stress among the nursing team in various healthcare facilities leading to burnouts among nurses. Cases of increased infections and fatalities among the nurses have been reported due to the disease putting increased amounts of mental and social pressures among nurses and affecting their overall mental health status. (Shen, Zou, Zhong, Yan & Li 2020.)

The rising cases of COVID-19 infections across the globe have put undue pressure to the healthcare system. Nurses are at the front-line in addressing and providing care for COVID-19 patients. The increasing pressure in the workplace and the patient population's growth due to the infection has been a major factor affecting the physical health of nurses. Exposure to long working hours has resulted in burnout levels in the nursing profession. Nurses feel the pinch of extended working hours and the need to deal with patients exhibiting various health conditions. Burnout affects the physical and emotional well-being of nurses reducing their overall ability to deliver optimal results in the workplace. This state of tiredness and burnout is attributed to continuous exposure and long-term involvement in work situations that are emotionally demanding. (Khasne, Dhakulkar, Mahajan & Kulkarni 2020.)

Fatigue and tiredness are also example of physical burdens among nurses taking care of COVID-19 patients. High workload, irregular work hours, and work structures resulting from the pandemic are directly or indirectly leading to fatigue and tiredness among nurses and fatigue can reduce the performance and productivity levels. (Chew, Wei, Vasoo, Chua & Sim 2020.) Nurses working in hospitals during pandemics are exposed to higher levels of stress and burnout since they are exposed to higher levels of job-related stress (Cameron & Brownie 2010). Critical patients care, increased workload leading to inappropriate working conditions as well as the inadequacy of time necessary to sufficiently meet patients' needs are some causes of burnout. Burnouts among nurses are linked with reduced willingness to undertake leadership positions, provide sufficient patient care and often lead to reduced levels of satisfaction in the job. (Talaee, Varahram, Jamaati, Salimi & Atarchi 2020.)

In this global COVID-19 pandemic, nurses are at the frontline in the management of COVID-19 and the treatment of patients. Nurses spend longer working hours in their workplace to offer their care services to an increasing COVID-19 patient population. They do not get time for their personal and family activities. They also do not have time for leisure and recreational activities, negatively affecting the quality of their lives. Now more than ever, nurses' experiences lack of balance between their work and personal lives. Nurses are dedicated to optimal performance and productivity in the workplace while getting minimal time to live their lives. (Chen, Lai & Tsay 2020.)

The fear of spreading the infection to their loved ones, especially the elderly who are at risk of contracting the disease and presenting more severe symptoms, led nurses to reducing their social activities (Fernandez et al. 2020). Nurses have been reported to taking extreme caution in their interaction with their family members to reduce the levels of exposure to possible infections. This has significantly affected the nurses' social lives and impacted their levels of productivity and performance. (Dwivedi et al. 2020.)

2.2 Coping strategies and resilience of nurses

Evidence has shown that healthcare workers are exposed to various work-related stressors and are at increased risk of developing challenges during crisis. Hence, it is of utmost importance to support the well-being of nurses in sustaining the health systems during and beyond the current crisis. This calls for purposeful interventions and educational efforts aimed at enhancing and nurturing resilience among nurses and other healthcare professionals by preventing and reducing occupational stress, which will help to support the well-being of nurses. (Kunzler et al. 2020.)

These interventions in long run will foster the resilience in nurses. Leadership behaviour can also influence the work environment as well as the well-being of nurses. Healthcare settings are associated with high cases of burnouts due to the nature of work and the increasing workload among nurses. Consequently, resilience provides the necessary components for nurses and other professionals to cope with such factors in their day-to-day activities in the provision of care. (Kunzler et al. 2020.)

Resilience enables nurses to mitigate against stress especially during crisis. The increasing workload and working hours occasioned by the increasing number of COVID-19 patients has been associated with burdens of anxiety, depression, and panic among nurses (Garros, Austin & Dodek 2020). Resilience is therefore a critical for the healthcare professionals to adapt positively to the prevailing circumstances in the face of adversity and stress. Resilience also supports nurses in recovering from difficulties while gaining strength from such experiences in the workplace. (Smith, Ng & Ho Cheung Li 2020.)

Critical elements of resilience in nursing practice include intelligence, resourcefulness, flexibility, and self-confidence (Duncan 2020). Developing resilience in the workplace touches on the ability of nurses to learn to cope with failures associated with the workplace systems. In the face of the current pandemic, hospitals are experiencing a surge in the COVID-19 cases as well as the inadequacy of resources to cope with the increasing numbers of patients. In such circumstances, resilience allows nurses to cope with the prevailing circumstances despite the challenges associated with it. Building resilience is an organization-wide effort rather than focusing on individual. (Delgado et al. 2016; Sommer, Howell & Hadley 2016.)

Nurses who display resilience in the workplace are likely to be more successful in their careers and can sustain themselves in difficult and challenging work environments (Reyes, Andrusyszyn, Iwasiw, Forchuk & Babenko-Mould 2015). Gaining awareness about one's emotions and feelings is vital in responding more appropriately and in a rational manner to the prevailing circumstances during the provision of care. This also promotes nurses' abilities to weigh alternative options and select the most appropriate option in the provision of care per the resilience principles. (McAllister & Lowe 2011.)

By addressing the focus on the resilience and coping strategies, nurses are encouraged to look after each other during their day-to-day activities in delivery of care during COVID-19 pandemic. The need for peer support is seen important as those who are affected by stress and other psychological problems may not recognize it and may face stigma in trying to look for professional help. (Cheng et al. 2020.) It has been established that, nurses rarely prioritize the need of taking care of themselves as they feel, this may put pressure on their team members. They also fear that they may be considered a let-down within their teams if they admit feeling psychological issues and pressures. Working as teams in the management and treatment of COVID-19 is essential hence, the need for nurses to work in teams and understand the need for being each other's keeper. (Cheng et al. 2020.)

This means, nurses are likely to identify the challenges being faced by individual team members and consequently adopt suitable intervention strategies to enhance quality in the provision of care (Shanafelt, Ripp & Trockel 2020). This also involves cooperation with other healthcare teams including colleagues, managers and all the other staff involved in the provision of care. An organization should be at the forefront in creating a facilitative environment that allows nurses to feel safe and share their emotions and experiences while providing solutions necessary for crises in healthcare. (Delgado et al. 2016.)

In dealing with the COVID-19 infections, nurses need to prioritize their well-being as much as it is possible. They should pay attention to meeting their physical needs as well as essential elements such as rest and sleep. Healthcare facilities should recognize the need for adopting suitable coping strategies to reduce anxiety, depression, stress, and panic among nurses. These could include the provision of a resting place within the healthcare facilities as well as guaranteed food and daily supplies to ensure that nurses concentrate in the provision of care rather than worrying about other issues that would affect their day to day lives. Other coping strategies includes training of nurses to enhance the management of the patient's psychological problems as well as the provision of counselling services for nurses to air their concerns and get psychological help to ease emotional pressures. (Maben & Bridges 2020.)

Team cohesion between colleagues as well as between leaders and their teams is a critical concept in supporting mental health among healthcare professionals. Honest communication

within healthcare facilities to support clear understanding of situations and suitable working conditions for all the staff should be involved in the provision of care. (Kang et al. 2020.) Nurses should seek support to build their capacity in supporting others as they manage the surging number of patients and the increasing workload. Having support from leaders and managers in healthcare facilities is important to support nurses in making difficult decisions in response to the increasing infections of COVID-19. (Maben & Bridges 2020.)

Establishment of teams within healthcare facilities means that nurses may have to work with various healthcare professionals to manage patient care. Consequently, there is a need for teams to support each other and find ways to make members of the team to feel valued, safe, and welcome. Team support covers the period within which nurses are working as well as outside of the workplace. This also involves engagement of teams with each other to ensure the well-being of all the members in the teams. Interrelations between nurses and other healthcare professionals during their day-to-day activities has shown an improved team interconnectedness as well as the increases in the levels of compassion for individuals, patients, and colleagues. (Ornell, Halpern, Kessler & Narvaez 2020.)

Psychological support, interventions, and staff support measures to reduce the disease's mental impacts among healthcare workers are needed during health care crisis. These could include psychological intervention support teams, counselling, the establishment of helplines, and adequate breaks and time-offs to protect the well-being of healthcare workers. (Moreno et al. 2020.) Other organizational strategies include adoption of suitable formal education programs that offer training and support in dealing with circumstances and events in the provision of care. Social support is vital in enhancing the overall working environment and ensuring that nurses and other healthcare providers can depend on each other by sharing their experiences in the provision of care and providing solutions to the existing problems (Yılmaz 2017).

3 Aims, objectives and research tasks

The aim of this study was to understand the experiences and well-being of nurses working in COVID-19 settings. The primary objective of this study was to explore the burdens experienced by the nurses working with COVID-19 patients. The secondary objective of this study was to understand the coping strategies of nurses while working with COVID-19 patients.

This study answers to the following questions:

1. What are the burdens experienced by the nurses working with COVID-19 patients in hospital?

2. What are the coping strategies of nurses while working with COVID-19 patients?

4 Methods

Methods are chosen according to the appropriateness of the research topic and models working with, most research methods of data collection can be used across studies that are classified as qualitative or quantitative. The way a specific method is applied for data collection determines the classification of a study to a large extent (Silverman 2013, 125).

4.1 Qualitative approach

This study used qualitative approach in seeking answers to the research questions by exploring the experiences of nurses working during COVID-19 pandemics. To acquire an understanding of social behaviour by exploring people's subjective experience in the social field, qualitative research can use a wide variety of approaches and methods of studying natural social life (Saldana, Leavy & Beretevas 2011). Qualitative inquiry explores the meanings people attach to their experiences. According to Sharan and Tisde (2015), qualitative research is the notion of inquiring into or investigating non-numerical data in a systematic manner as it provides an understanding of social behaviour by exploring people's account of social life and their experiences.

Primarily, the information and data collected were analysed, they were exclusively non-quantitative in nature, and consists of textual questionnaires that documented the nurse's experiences in COVID-19 environment. Qualitative study has ability to provide complex textual description on how people experience a given issue. Hence, this study was done using the qualitative approach and the focus was on nurse's experiences, their visible feelings, and emotions through the open-ended questionnaires. The findings from the synthesis of data included the documentation of nurse's text and their rich narratives.

4.2 Research setting

As noted earlier, qualitative study is based on an investigation of social phenomena that gives precedence to the perspective of the people experiences. Methodologically, qualitative data are required to remain close to the values, meaning, intentions, aspirations, and that follows the humanistic approach (Holloway 2005, 26). Nurses of psychogeriatric ward in one of the Helsinki city hospitals were taken into consideration. This is one of the units of Helsinki city hospital that has a provision of 28 patients. Treatment times are about 10–20 days depending on the state of the patient. About 60% of patients come to the ward via emergency services of main hospitals of Helsinki regions. (Helsinki Kaupunki 2020.) During the COVID-19 pandemic, the ward received patients with COVID-19 diagnosis and nurses were involved in direct COVID-

19 patient care. Hence, the study will explore their experiences imposed by COVID-19 and their coping strategies on burdens of COVID-19.

4.3 Data collection

To experience, understand and reflect the social world from researcher perspective, it requires the collection of sufficient evidence to document the pattern of nurse`s experiences during COVID-19 pandemic including the major burdens, nurse's well-being, and coping strategies. Themes and sub themes were categorized inductively from the data collection. For the collection of data in this qualitative study, purposive sampling of nurses working with COVID-19 patients was applied.

Purposive sampling of informants is applicable in cases where participants' randomization is not a feasible and efficient option. When applying this technique of informant recruitment, there is a need for the researcher to avoid bias to boost informant reliability and competency, based on the desire for data quality in research studies. This is associated with a reduction of bias in the selection of informants to support the reliability of data in making a suitable conclusion about research topics. (Dolores & Tongco 2007.)

The thesis plan was accepted in the institution and the further approval to conduct the study was received from the relevant authority in Helsinki city. Initially the head nurse of the psychogeriatric ward was our contact person. She and the head doctor of the ward were given the preliminary introduction about the thesis topic. The participation of the nurses in this study was voluntary. Before they took part in answering the questionnaires, each of them was given a consent letter to sign, the consent letters were in English (Appendix 1) and Finnish languages (Appendix 2). Open-ended questionnaires (Appendix 3) were also delivered to nurses in separate envelopes. The data collection took place on 1st February to 21st February 2021. During data collection process, thirteen nurses participated in the study.

Open-ended questionnaires were formulated according to the need of the main research questions (Appendix 3) and used as a data collection tool in this qualitative thematic study. Altogether, there were sixteen questions. According to Kumar (2014), questionnaires are written list of questions whereby the respondents will read the questions, interpreted what is expected and then write down the answers. In an open-ended question, the participant writes down the answers in his /her own words. Open-ended questions provide participants with the opportunity to express themselves freely, resulting in a variety of information and thus participants are not conditioned by having to select answers from a list (Kumar 2014). This approach allowed the participants to answer the thematic questions thoroughly.

According to Fusch and Ness (2015), data saturation can be reached when there is enough information to replicate the study, when the ability to obtain additional new information has

been attained, and when further coding is no longer feasible. A conscious effort was made to read and analyse the nature of the data before determining the data saturation. In saturation, a smaller study can achieve saturation faster than a larger one (Fusch & Ness 2015). It was found that some participants had answered the survey questionnaires with long sentences and stories about personal experiences from the COVID-19 situations whereas some participants had answered it using short and brief phrases. However, both answers depicted the nurse`s perspectives and first-hand experiences about the COVID-19 pandemic. In this study, saturation was determined once the writers found the similar type of responses from the nurse participants in multiple sets of questionnaires and it was confirmed that no new information on nurse`s experiences regarding COVID-19 could be obtained.

4.4 Data analysis

Data analysis is central to credible qualitative research (Maguire & Delahunt 2017). In this study data analysis was performed following the analytical procedures for outlined by (Nowell, Norris, White & Moules 2017) that are presented in Table 1. According to several methodologist (Braun & Clarke 2012; Nowell et al. 2017) thematic analysis is a method used in qualitative research to identify, organize, analyse, describe, and report themes found in a data set. The approach is used across a wide range of research questions and epistemologies. Thematic analysis is a practical data analysis approach for qualitative data. This analysis seeks to identify patterns of themes in a qualitative dataset. It provides a rich and detailed account of the data. It is a reflective process that involves a constant moving back and forward between the entire data set. (Nowell et al. 2017.) A well-structured approach to handling the data helps to produce a clear and organized final report (King 2004).

Thematic analysis is a method for describing data that involves interpretation in the processes of selecting codes and developing themes in a qualitative data. It is suitable and powerful method to use when seeking to understand a set of experiences, thoughts of the participants across the data set. (Braun & Clarke 2012; Glenwick & Jason 2016.) Theme is a patterned response derived from the data that informs the research question. Theme is a more abstract entity that involves a greater degree of interpretation and integration of data (Nowell et al. 2017; Glenwick & Jason 2016). Themes are data driven in Inductive approach. Inductive approach tends to provide a broader, more expansive analysis of the entire body of the data. To establish the trustworthiness of the data Nowell et al. (2017) described the thematic analysis process in six steps as shown in Table 1. Thematic analysis helps to identify common ideas across data collected which is a crucial step in data analysis. Coding and theme development were directed by the content of data that are collected from the questionnaires.

Inductive approach was applied in this study, the data collected determined the themes. To have comprehensible and consistent knowledge on the study subject, the quality of the collected data must be analysed. Inductive analysis addresses the collected data by beginning with the data's content rather than a particular hypothesis. According to Elo and Kyngäs (2008), inductive approach is useful when analysing a subject that lacks simple hypotheses to back it up.

	Phases	Description
1	Familiarizing with data	Need for an in-depth understanding of various data forms for qualitative research.
2	Generating initial codes	Initial production of codes from data for simplification and focus on particular data characteristics.
3	Searching for themes	Sorting and collation of potentially relevant extracted data into themes. The process brings together components and fragments of experiences and ideas in the field.
4	Themes review	Analysis of the validity of individual themes.
5	Definition and naming of themes	Detailed analysis of the themes captured and their representation on how it helped the writer to understand the experiences of the respondents.
6	Generation of report	Production of a concise logical, coherent, non-repetitive and an interesting account of data across themes.

Table 1: Description of the thematic analysis phases (Nowell et al. 2017)

According to Thomas (2006), inductive approach is a systematic procedure for analysing qualitative data whereby the analysis is guided by specific evaluation and objectives of the study. In this study, the experiences of the nurse participants guided the study. During the data analysis process, the experiences of nurses guided the writers to achieve the objectives of the research study. Thomas (2006) further referred to inductive analysis as an approach that use detailed readings of raw data to derive concept to construct themes through interpretations made from the raw data by the writers.

In the process of data analysis, the writers began to focus on the area of study, and the area of the study was the burdens experienced by the nurses while working with COVID-19 patients during COVID-19 pandemic. The recognised codes allowed themes to emerge from the data. The main purpose was to allow the findings to emerge from the frequent, significant themes

identified from the raw data of the nurse's experiences without the restraints imposed by structured methodologies (Thomas 2006). In this inductive approach, the themes identified are strongly linked to the data gathered.

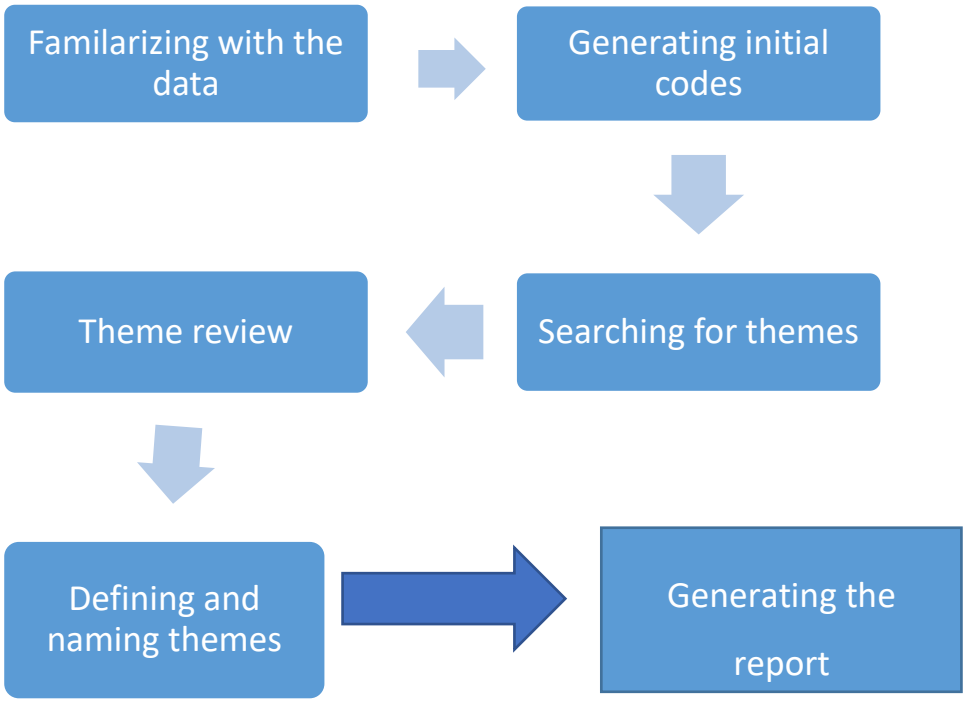

Figure 1: Phases of Thematic analysis (Nowell et al. 2017)

Thematic analysis is a method for systematically identifying, organizing and offering insight into a pattern of meaning (themes) across a dataset. They further said that it allows the researcher to see and make sense of collective meanings and experiences. This method helped to identify what was common to the way a topic is talked. (Braun & Clarke 2012.) During the data analysis process, 6 phases were used. Coding and theme development were directed by the content of data that were collected from the questionnaires. Additionally, the themes are useful in examining the different perspectives of study participants focusing on their similar as well as unanticipated insights. (Nowell et al. 2017.) Below are the phases adopted in the data analysis process.

Phase 1: Familiarizing with data

After the collection of data from the nurse participants, first language adjustment was done by translating the participants' answers from Finnish language to English language, since the questionnaires were in two languages: Finnish and English. Two participants answered the questionnaires in English and the rest of the eleven participants answered in Finnish

language. The whole process of translation from Finnish language to English took one week. To ease the translation process MOT dictionary and MOT translation were used.

In this first phase, the writers immersed themselves to the data by reading and re-reading the answered questionnaires to be familiar with the entire body of data collected before coding and searching for meanings and patterns. After reading through the text, the writers make preliminary rough notes on the extract by italicizing significant sections, adding comments, and looking through the data to get familiar with it.

Patriciant. 1	At first, I thought that the disease would not affect the lives of Finns in any way. However, the disease also came to our ward and it was stressful. I was just wondering if I might have brought the disease to the ward myself even though it was not the case.
Patriciant. 2	I knew that at some point the pandemic would shake the world. Getting the information and moving forward felt scary. Treating patients did not seem miraculous because I relied on protective gear.
Patriciant. 3	There is enough information about it. It`s scary. It caused a lot of anxiety and a feeling of hopelessness.

Table 2: Example of familiarizing with data

Phase 2: Generating initial codes

The second phase was to assign the initial codes where coding helped to organize the data at very specific levels in meaningful and systematic way. This can only be achieved through the deep familiarization of the data in the first step. This phase aimed to take the writers deeper into the meaning of the texts exploring the themes that emerged and identifying the patterns that underlie in them. In this phase, the text was coloured and coded according to similarities. The writers coded each segment of the data that was relevant and captured something interesting about the data that could answer the research question. Open coding was applied because there were no pre-sets code but developed and modified the codes as the writers worked through the coding process. In an inductive coding, themes were derived through interpretations based on data. After finishing the first step of data familiarizing, ideas on initial codes were emerged. Hence, the writers discussed together, and colour coded them. The writers worked through each data set, coding every segment of the text that seemed to be relevant to address the research question.

After reading and familiarizing with the data, the writers started organizing data in a meaningful and systematic way. From data collected, the responses were coded according to similar meanings and nurse perspectives. During coding, the writers identify the important

initial codes that emerged from the data. Some answers were short and precise which was easy to code. The coding was done manually using a computer by highlighting using different colours as shown in Table 3. These different colours refer to separate contents and the bold text in parentheses refers to the initial codes. Coding is important as it reorganizes and checks the data from the study so that the writers could better seize the particular and meaning rich data extracts. The descriptive codes summarize the meaning of the data. Repetition and interrelated data extracts represented the patterns.

Meaning units	Initial codes
At first, I thought that the disease would not affect the lives of Finns in any way. However, the disease also came to our ward and it was stressful (P1) **(Threat of pandemic approaching near).**	Threat of pandemic approaching near
I was just wondering if I might have brought the disease to the ward myself even though it was not the case (P1). **(Fear of transmitting disease)**	Fear of transmitting disease
I was anxious and worried about my own coping. Uncertainty was the prevailing feeling and perhaps fear was also there in the beginning (P1). (**Apprehensive thoughts due to the disease).**	Apprehensive thoughts due to the disease
I knew that at some point the pandemic would shake the world. Getting the information and moving forward felt scary (P2). **(Threat of pandemic approaching near).**	Threat of pandemic approaching near
It is frustrating to hear about COVID-19all the time (P12). **(Negative feelings due to COVID-19).**	Negative feelings due to COVID-19
The most anxiety was caused by the fear of taking the virus home and infecting one's own family (P7). **(Fear of transmitting disease).**	Fear of transmitting disease
During those times, I was worried that I will get sick (P3). **(Apprehensive thoughts due to the disease).**	Apprehensive thoughts due to the disease
Getting sick stresses nowadays, when you have to go for COVID-19 test even in small flu like symptoms. There has been more sick leave due to this. Feeling of guilt/ bad conscience arises when I am in sick leave even though I am not sick (P1). **(Negative feelings due to COVID-19)**	Negative feelings due to COVID-19

Table 3: Example of generating initial codes

Phase 3: Searching for themes

This phase focused on sorting and collation of potentially relevant extracted data into sub themes. The process brought together the components and fragments of experiences and ideas in the field. In this part, initial codes were looked and most of them clearly fitted together into sub themes. As stated earlier, in this data analysis, themes were generated inductively from the raw data. This thematic analysis is data driven. Initial codes that appeared as subthemes are categorised below in Table 4.

Meaning Units	Sub-themes
At first, I thought that the disease would not affect the lives of Finns in any way. However, the disease also came to our ward and it was stressful (P1). I knew that at some point the pandemic would shake the world. Getting the information and moving forward felt scary (P2).	Threat of pandemic approaching near
I was just wondering if I might have brought the disease to the ward myself even though it was not the case (P1). The most anxiety was caused by the fear of taking the virus home and infecting one's own family (P7).	Fear of transmitting disease
I was anxious and worried about my own coping. Uncertainty was the prevailing feeling and perhaps fear was there in the beginning (P1). During those times, I was worried that I will get sick (P3).	Apprehensive Thoughts due to the disease
It is frustrating to hear about COVID-19 all the time (P12). Getting sick stresses nowadays, when you have to go for COVID-19 test even in small flu like symptoms. There has been more sick leave due to this. Feeling of guilt/ bad conscience arises when I am in sick leave even though I am not sick (P1).	Negative feelings due to COVID-19

Table 4: Generating sub-themes.

Phase 4: Themes review

In this phase, it involved the analysis of the validity of individual themes, each theme was tested for validity. Validity of the individual theme was checked by rereading the data extracts that fitted into each theme to ensure that all the data forms a coherent and consistent pattern. Inadequacies in the initial coding and theme were noted and supplements

were made. The changes were anticipated as well as the substantial overlaps in the existing codes were deleted.

Furthermore, in this phase some themes merged into one another, while some needed to be separated into distinct themes. The selected themes were distilled into themes that are both descriptive and expansive enough to capture the range of ideas used in the various text fragments from the data. The data was condensed into a manageable collection of key themes that concisely outline the data. To ensure that the data within the themes were coherent, meaningful and themes to represents the participants' voices, the writers had to return to the raw data many times.

Phase 5: Defining and naming of themes

In this phase detailed analysis of the themes were captured and their representation on how it helped the writers to understand the experiences of the respondents. Modifications and various revisions were made while conducting a detailed analysis of this data. To determine the sufficiency of themes generated, both writers were constantly peer debriefing with each other. A sufficient time was invested to derive the themes as well as coding were scrutinized multiple times to increase the probability of constructing a credible finding and to make the data speak itself through a coherent theme. Hence, in this phase, the writers captured the essence of what each theme is about, and five themes emerged. They are emotional burdens experienced by the nurses during COVID-19, Physical burdens experienced by the nurses during COVID-19, Social burdens experienced by the nurses during COVID-19, Coping strategies of nurses and finally Communication during crisis.

Phase 6: Generation of report

In this phase, it involved the production of a concise logical, coherent, and non-repetitive and an interesting account of data across themes. Once the scopes and contents of each themes were clearly described, the final reports were produced in a logical manner. The findings from the data are clearly developed so that the claims made in relation to the data set ensure the credibility and trustworthiness. In the final report writing, one of the crucial components are the direct quotes from the participants. Short quotes were included to facilitate the understanding of specific points of interpretation as well as to exhibit the prevalence of the themes. The writers used the shorter as well as longer quotations within the narratives to give readers the ideas on original texts where all quotations were tagged with participant number. Themes and subthemes extracted from the exemplar quotes are presented in the result sections that will assist the readers to understand the nurse's experiences during COVID times.

5 Results of the study

The study findings among the nurses of psychogeriatric ward showed 5 themes and 22 subthemes that emerged from the 167 meaning units. These nurse participants, who participated in the study, did not have a previous background of working in global pandemic however, they had the previous knowledge on the infectious disease like seasonal Influenza. As the COVID-19 disease outbreak occurred, nurses were in the forefront of the pandemic without much preparation. Nurses were struggling against the invincible enemy while expanding their nursing roles in geriatric COVID-19 patient care. During the work, nurses experienced many positive and negative changes in the personal as well as in their working lives. They grew tired of the protracted pandemic and experienced various apprehensive thoughts and emotional burdens. The major experiences nurse participants expressed in the data collection process are shown in Figure 2 below.

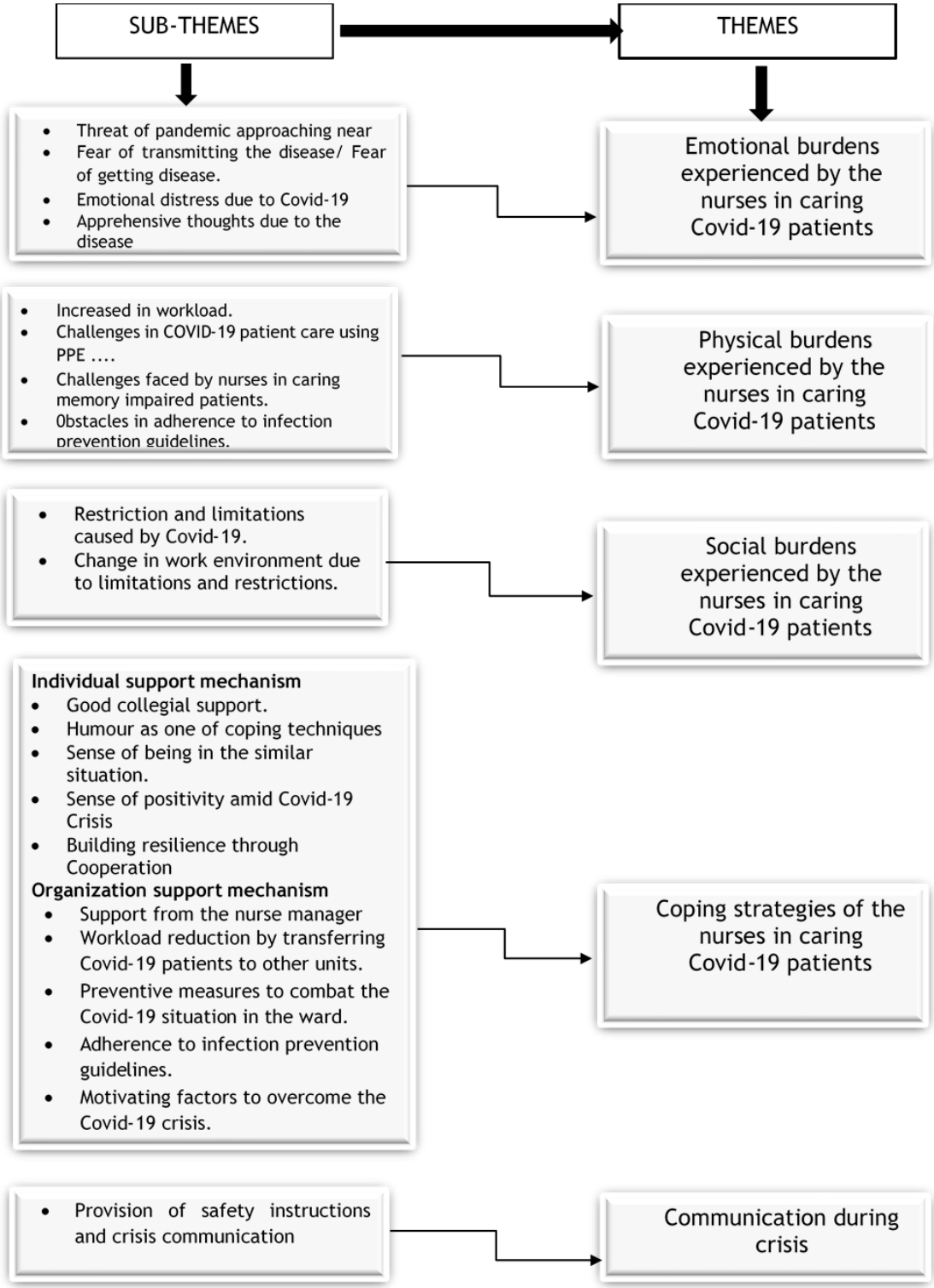

Figure 2: Experiences of nurse participants during COVID-19

5.1 Emotional burdens experienced by nurses during COVID-19

Mental distress has been common during COVID-19 crisis as exhibited in stress, fear and anxiety among frontline healthcare staff. From the responses made by the nurses' participants working in COVID-19 settings, it indicated that mental distress was caused by the new disease. Most of the nurses felt it was too much to handle. This is because the disease caused a lot of emotional pressure as they were not prepared for it. Most of them mentioned that they were emotionally stressed. The sub- themes under emotional burdens are mentioned below.

5.1.1 Threats of pandemic approaching near

During the early stage of the COVID-19 pandemic, the nurses experienced fear and intimidated by the disease. The level of perceived threat was higher among the nurses. One nurse participant expressed her concerns on how health system got overwhelmed in Italy due to the surging cases of COVID-19 pandemic. Other participants also shared the common ideas on the severity of the COVID-19 disease in the global perspective. Some expressions to support this are -

> P2: I knew that at some point the pandemic would shake the world. Getting the information and moving forward felt scary.
>
> P13: When I first heard of COVID-19, I was scared. I feared it because I knew it might be the worst situation in my life. It was spreading rapidly.
>
> P10: I was worried and very anxious. I kept hoping that I could just stay at home especially when, I saw how the situation got bad in Italy.

In those early days, most participants experienced fear and confusion because the disease was progressing rapidly and there was no clear information about the transmission route, incubation period and the related symptoms of it. As the number of COVID-19 cases were increasing in the ward, the ward initiated urgent preparation measure by transferring the existing patients to the other units but still an environment of fear and threat was there. Nurses were anxious that there could be new COVID-19 infections. Fear of unknown was present in the ward and fear was one of the emotional burdens of COVID-19. Anxiety, anger, hopelessness, and frustrations were caused by rapid changing working environment due to the COVID-19 disease.

> P8: Most of the news about the virus seemed confusing and the rapid progression of the situation was scary. As new patients came, we were anxious that there would be new COVID-19 infections.

5.1.2 Fear of transmitting the disease and fear of getting disease.

From the responses made by the nurses working in COVID-19 settings, it indicated that stressful situations were caused by the new disease. Most of the nurses felt this because the disease caused a lot of tough pressure, as they were not prepared for it. The fear of getting infected with the disease and transmitting the disease to the family members, loved ones were other dominant feelings prevailed among these participants. It also showed that the nurses of psychogeriatric wards who were taking care of COVID-19 patients knowing that they could be exposed to the infection. They may transmit the infection to their loved ones as well. This could have caused a nurse to be in professional dilemma between choosing his/her own health and her family or the nursing profession. However, nurses who participated in this study did not express these types of emotional dilemma. Rather than the provision of care to the patients with COVID-19 was seen as a sense of duty and responsibility came with nursing profession. Even though, there was maximum possibility of being a carrier of the disease, the nurses reported that even if it was stressful situation, they were helping their geriatric patients. On the other hand, more nurse participants could not have close contact with their friends and families. The fear and anxiety of being the carrier of the disease always existed among the nurses when they came back home from the job.

> P13: When I heard of COVID-19, I was too scared. I feared it because I knew it might be the worst situation in my life that it was spreading rapidly. There was nothing much I could avoid it. I was sure that our working environment might also change. I was too anxious because one of our relative got COVID-19. She was also a nurse like me, and she was hospitalized.
>
> P10: I was emotionally overwhelmed especially having to practice caution all the time.
>
> P9: Fear of transmitting it to others because I have fallen sick with COVID-19 myself. I am scared how severe the disease could become. Feeling anxious when you need to be so careful and constantly protect yourself.

Other findings from the data also added nurse’s concerns about their families' concerns about them and were particularly cod about transmitting the infection to their loved ones. Nurses have highlighted the physical and mental stress related to the protracted COVID-19 crisis. Protecting the patients, family members and other social circles from the COVID-19 was paramount for these nurse participants. To avoid the transmissions, these nurse participants avoided social gatherings.

> P9: I was afraid of transmitting it to others because I have fallen sick with COVID-19 myself. I was scared, intimidated, and anxious. I wonder how many are infected and how the disease affects each one individually. If I got sick myself and infected my loved one. Could they die?

> P7: The most anxiety was caused by the fear of taking the virus home and infecting one's own family. The fear of infecting others was the strongest. The long continuation of isolation activities strained physically as well as the fear of infecting self and others of close proximity strained mentally.
>
> P10: I was scared to expose my patients and colleagues to COVID-19, which made me more cautious. I have avoided many social gatherings.
>
> P11: I have experienced little fear all the time, because outside of work, I am taking care of my 92-years old father. My boyfriend and I are also taking care of his 88 years old mother. The pandemic has perpetuated anxiety upon me, that from the work I could bring infection with me and transmit to risk groups, family members.

5.1.3 Apprehensive thoughts and emotional distress due to the COVID-19

Most of the participants mentioned anxiety and worry caused by COVID-19. One of them was worried about how they will manage the disease on their own. Most of them were overwhelmed by the feeling of uncertainty. In addition, they were filled with confusion and hopelessness. One nurse also brought her concerns on not having the effective way to cope with the situation. This is because the news about the virus were so scary and confusing to them. They were worried about losing their loved ones to COVID-19. In this study, nurse participants been exposed to stronger anxiety, fear, sadness, and frustration as an apprehensive thought that had further added the emotional distress among them.

> P1: I was anxious and worried about my own coping. Uncertainty was the prevailing feeling and perhaps fear was there in the beginning.
>
> P2: The beginning was nervous and scary.
>
> P3: During those times, I was worried that I will get sick.

5.1.4 Negative feelings due to COVID-19

In a pandemic situation, these nurses have gone through emotional as well as physical stress. The data revealed that these nurses experienced a range of feelings such as excitement, doubt, and helplessness amid COVID-19 crisis. They also experienced feelings of remorse and self-blame being in COVID-19 situations for longer times. On the other hand, they were afraid and guilty that they might infect their families and loved ones. The physical exhaustion due to continuous exposure to long working hours, health threats, poor crisis communication in the organization, and lack of knowledge of COVID-19 pandemic had led to formation of negative emotions such as fear, anxiety, and helplessness. Several nurses who took part in this study have reported these feelings.

> P9: I was feeling anxious when you need to be so careful and constantly protect yourself with a mask and think about where you are moving in your free time.
>
> P12: It is frustrating to hear about COVID-19 all the time.
>
> P1: I was little more tired and stressed than usual, otherwise nothing particularly. Getting sick stresses nowadays, when you have to go for COVID-19 test even in a small flu like symptoms. There has been more sick leave due to this. Feeling of guilt and bad conscience arises when I am in sick leave even though I am not sick. However, mainly I feel the atmosphere was tightened and people are tired of the situation.

5.2 Physical burdens experienced by nurses during COVID-19

Nurses are facing higher risk of infection due to COVID-19 exposure. They are at high risks for developing physical consequences due to their daily role in providing care to the COVID-19 patients. From the data collected, it is vivid that the nurses caring for COVID-19 patients experienced extreme physical burdens, fatigue and inconveniences caused by the disease outbreak.

5.2.1 Increase in workload.

In the beginning, the pandemic brought a lot of confusion and chaotic problems in the ward that increased the workload in the ward. The large number of memory impaired geriatric patients, lack of protective equipment and lack of proper resources made the working environment difficult.

> P1: When the epidemic broke out in the department, the pressure was heavy. A lot of overtime had to be done when the staff got sick. There were new guidelines, recommendations, restrictions all the time and the assimilation of these new information was exhausting. I was little more tired and stressed than normal. Proper isolation of memory-impaired patients is challenging, and patients do not understand to be in the isolated rooms.
>
> P5: Work pressure was tough at COVID-19 times in the department. Workload has increased due to COVID-19. I did long days and many weekends I worked overtime. I also took care of many things from home through phone.
>
> P9: We are tired in work community; the work atmosphere suffers in between. There are numerous calls from the relatives since there is restriction on visit.

5.2.2 Challenges in COVID-19 patient care using PPE

The nurse participants were challenged by the new kind of situation at work in the Psychogeriatric ward. Some participants mentioned getting the protective equipment were tricky at first due to shortage of the PPE worldwide. The surge in infection rates caused shortage of such products. The effect of the shortage was also seen in the ward. Other burden was the constant change in the instructions and those series of unexpected situation

increased the level of physical burden among the participants. The participants were unable to anticipate.

> P8: At first, there were shortage of mask and other PPE.
>
> P6: There was shortage of PPE and they were not provided enough to prevent the COVID-19 infections in the ward.
>
> P2: There were many new instructions.

Based on the experiences of these nurse informants, it was difficult and time consuming for these nurses to wear personal protective equipment (PPE). The informants also reported that wearing PPE for longer times increased their body temperature and sweating. The use of PPE also restricted their mobility. These factors made them feel suffocated and hot. It was found that the nursing care and helping the patients in their activities of daily livings was difficult wearing protective gears when patients are already confused and memory impaired. Some nurse participants expressed as:

> P3: It was sometimes heavy because one would have to put protective clothes on and be hot and difficult to breathe.
>
> P8: Working-using PPE is difficult.
>
> P9: The major challenge had to put on a lot of PPE. It took a lot of time and it was too hot especially when having to do wound care and feeding.
>
> P13: The use of PPE was tiresome since it was hot. Taking care of the patient, especially showering and using PPE was exhausting, it made me feel like fainting.

5.2.3 Challenges in caring memory impaired patient during COVID-19

Some of the participants expressed their concern that long and irregular duty hours in constrained environment contribute to increased level of physical tiredness and eventually precipitate burnouts. Burnout has far-reaching effects for workplace moral, patient safety, quality of patient care and treatments. They also reported the difficulty dealing with geriatric patients who refused to be quarantined or who refused to cooperate in the ward because of their medical history e.g., Dementia, Alzheimer, and other Psychiatric conditions. This is due to lack of knowledge and understanding about the disease among old population. Some participants reported that they were not mentally prepared to deal with the current job situation and were worried about the psychological impact of this COVID-19 situation in their normal lives as well as working lives. One of the participants added as

> P11: It is very tiring in the department where I am working. Continuous wearing and removing protective clothing, continuous use of masks makes its difficult. The patients in the psychogeriatric ward are afraid of PPE protected nurses

> because they do not understand what it is all about and quickly forget what they have been told and understood just ago. Opposition to treatment increases for them. This is an exhausting experience. Probably at a higher level, the city's health care management does not understand how high the risk of a pandemic spread is in a psychogeriatric ward, where it is almost or completely impossible to keep patients in isolation even until a sample response is obtained. Often, taking a sample from a severely memory-impaired, anti-treatment, aggressive patient is already difficult and sometimes requires many nurses.

Another nurse added,

> P13: It was also hard to keep patients in the isolation rooms since we have patients with mental problems. They were wandering all the time around the ward making work so difficult and stressful.

5.2.4 Obstacles in adherence to infection prevention guidelines

Other physical burdens what nurse participants experienced was challenges in adherence to infection prevention guidelines among psychogeriatric COVID-19 patients. One nurse expressed:

> P7: When working with patients of memory and psychiatric disorder, adherence to isolation measures at times is almost impossible.
>
> P12: Proper containment measures were missing in the ward. Patients with memory problems do not always understand to stay in the isolation rooms. The rooms are also not ideal for isolation precautions.

One of the nurse participants expressed her concern on infrastructural problems in following the COVID-19 safety guidelines. According to her, the ward had insufficient isolation rooms and the ward was not as ideal as other infection units for proper donning and doffing of PPE. Other nurses had concerns on constantly changing infection prevention guidelines in those early days.

> P9: Patients should stay mostly in the isolated rooms and the distance of 2 m is not realized in memory-disorder patients. Our ward is not intended to be an isolation ward, there are no isolated place in front of the patient room where the protective shields are worn and removed.
>
> P11: Patients do not stay in isolation rooms, and the ward does not even have more than three single rooms with their own toilet. The other two have a shared toilet and the rest of the rooms are shared ones. There are 28 patients in the ward. At times, we were sent patients from other hospitals/emergency departments. Some were COVID-19 positives already as well as COVID-19 samples were not taken from symptomatic either.
>
> P10: At the beginning, the infections guidelines were quite unclear on what to do, but with time, it got much easier. Another obstacle was when patients were allowed visitors, some visitors overstayed the time they were allowed and put on masks only when they saw nurses. Some of our patients who were exposed to COVID-19 did not understand the rules of isolation at all.

5.3 Social burdens experienced by nurses during COVID-19

During the COVID-19 pandemics, nurses are at the frontline in caring and treatment of COVID-19 patients. Infections are rising all the time and thus nurses are willingly or unwillingly working for more extended periods in an unfavourable condition. Nurses spend longer working hours in their workplace in care services. This has caused adverse effects on the social lives and well-being of nurses.

5.3.1 Restrictions and limitations caused by COVID-19.

According to the data collected, nurses do not get time for their personal and family activities due to the COVID-19 related stress and fear. They also do not have time for leisure and recreational activities, this has affected the quality of their lives. Nurse participants were experiencing a lack of balance between their work and personal lives. They were dedicated to optimal performance and productivity in the workplace while getting minimal time to live their personal lives. One of the participants mentioned that,

> P10: It was a bit stressful being unable to travel a lot or engage in many activities during summertime.

The lack of interactions between nurses and their families has been reported in the data. The primary fear of spreading the infection to their loved ones, especially the elderly who are more at risk of contracting the disease and presenting more severe symptoms, has led to nurses reducing the activities in their social lives.

Social distancing, isolation and security measures have affected the social relationship of many nurse. The perception of empathy towards others including nurses has changed due to the exposure and increased risk of infection and transmission to the families and friends. Most of the participant mentioned that they refrained themselves from the leisure activities due to the potentially being a source of viral transmission.

> P10: I have avoided many social gatherings.

Interactions with the nurse’s close families has been carried out with extreme measures of caution to prevent the spread of the infection to the families. Nurses have been reported to taking extreme cautionary measures in their interaction to reduce the levels of exposure to the infection for them and their family members. This has significantly affected the nurses' social lives and affects their levels of productivity and performance in the workplace.

> P13: The work life balance has been a big problem. I feel like I have no free time because of stress and fear of COVID-19.

The participant often felt burdened at times due to the numerous strict guidelines directed in the unit.

> P9: It feels unfortunate that the relatives' restriction on visiting family members has lasted a long time. Intra-hospital meetings, trainings are prohibited for time being.

5.3.2 Change in work environment due to COVID-19

The nurse participants also felt the change in the work environment. Regarding the reinforced infection policies, the refreshment rooms and breaks were divided. Not all staffs could be in the break room at the same time, only six staffs could be in the rest room at a time. This had led to change in the social environment at work among the nursing staffs as they could not share common ideas and have a joint discussion.

> P8: The staffs are divided into two refreshments rooms and breaks are divided. This has had a slight effect on the work atmosphere and collaboration. We miss joint discussions that give us the strength to cope at work.

> P13: The work environment changed because the break rooms can have only a limited number of people. Other restrictions make us have to plan breaks and meetings in different intervals.

5.4 Coping Strategies of nurses working with COVID-19 patients

During the COVID-19 crisis, the nurse participants have been exposed to different stressors. From the data, it is revealed that nurses were facing various physical, emotional, social and organization related stress during COVID-19 pandemics. From the data we gathered, we found that nurses had individual and organizational coping strategies they implemented during current COVID-19 crisis. They are listed below.

5.4.1 Individual coping strategies of nurses

During COVID-19 pandemic, it was vivid that nurse participants were at the front-line caring the patients, on the process they were experiencing different challenges thus coping strategies were needed to reduce their stress and burnt out. Nurses had been trying out different self-care strategies in order to help them enhance their well-being during crisis. Below are some of the coping mechanisms applied by these nurse participants during COVID-19 pandemic.

a) Good collegial support

Good collegial support was identified during COVID-19 pandemic among nurses working in the ward. It was one of the coping mechanisms that helped them to cope with crisis. Nurse

participants mentioned that they were supporting each other during pandemic. They had good cooperation and efficient teamwork. Peer support and encouragement was extensively used. The communication among each other was also good. Nurses sought multiple support system to build their capacity in supporting others as they managed the surging number of patients and the increasing workload due to the coronavirus in the ward.

> P3: We had good collegial support.
>
> P4: We helped each other at work.

Communication with the team was a great way to cope with the situation. Work related stress are unavoidable in the hospitals however, it could be managed by communicating properly with each other. These nurses fostered an open dialogue through the collegial support.

> P7: Strong discussion with co-workers besides work helped a lot to cope in day-to-day work.
>
> P8: Co-workers have been an important support. We have tested each other's humour as needed.

Nurses encouraged to look after each other during their day-to-day activities in the delivery of care during the COVID-19 pandemic. The need for peer support was seen as critical as those who are affected by stress and other psychological problems may not recognize it and may face stigma in trying to look for professional help. Nurses moderately prioritized the need of taking care of themselves as they feel that this might have put pressure on their team members.

> P10: Verbal encouragement and whenever I did not understand the guidelines, they were willing to explain.
>
> P13: The whole team was supportive of one another. There was good communication with co-workers.
>
> P9: Supports from colleagues, good teamwork. We have a good spirit in the department. We have managed to support each other.

b) Humour as one of coping techniques

Nurses have been using different techniques during COVID-19 crisis to cope up with the situation. Based on nurse's experiences, humour was one of the factors that helped them to cope with the situation during crisis. Humour was a complex process among the nurse participants that involved cognitive, emotional, and interpersonal aspects. These nurses used

self-management strategies to maintain a good mood through the humour. Humour had lifted their spirits as they persevere through the challenging times. Most of the participants mentioned-

> P1: Humour has helped a lot to cope in this difficult time.
>
> P11: Humour and cooperation has helped a lot to cope with the situation.
>
> P13: We used humour and worked together to get through the time.

c) Sense of being in the similar situation

Some of the nurse participants shared the experiences of being in the similar situation meaning the COVID-19 crisis is not only present in their ward, it is a global issue. Nurses reminded themselves that everyone is in an unusual situation with the limited resources. They also shared the experiences of reconciliation on not having control over the global pandemic at that moment. They were hoping for the best outcomes for everyone affected by COVID-19.

> P2: We were in a condition of giant COVID boat.
>
> P12: We all are in the same condition.

d) Sense of positivity amid COVID-19 Crisis

Nurse participants reported positivity an optimistic attribute. Positivity created a high level of resilience at work that led in better working performance among the nurses. Varieties of perspectives were expressed by nurses regarding positivity and optimism in the face of adversity. Majority of the participants were positive about the situation and looking forward. They were hopeful that better days would come. Some felt that they had that ability to find meanings in the crises. That sense of positivity amid COVID-19 crisis had made them more resilient and given them strength to persevere. Along with time nurses viewed that, they have been actively obtaining new knowledge about COVID-19 to build their confidence and positivity in providing care to their patients.

> P2: I have been able to be at work and I have managed well financially and emotionally.
>
> P12: Better days will come.

The state of emotional and physical exhaustion was often seen among most of the nurse participants. The emergent infection disease outbreaks had exposed nurses to infection risks

and caused other burdens on them. However, some of the nurses experienced less effect of COVID-19 in their working life. Some had positive attitude and sense of positive feeling due to staying healthy and be able to work even during such unprecedented healthcare crisis.

> P3: I was lucky that I stayed healthy.
>
> P6: Fortunately, COVID-19 has not affected my work and me. I was quarantined and paid. The patients were transferred to other units.

The nurse participants talked openly about how the COVID-19 pandemic is affecting their work, identifying the risk factors that caused burdens and worked together to find the solution were seen as a useful way to cope with the pandemic. Another nurse described her experience on having rewarding feelings and positivity due to personal responsibility. Giving recognitions and respecting the individuality, looking for ways to reframe negative emotions and improving each other's well-being had given them the sense of positivity and optimism.

> P1: I received an instant reward for securing the department's operations during COVID-19 time. I guess I use it for my well-being.

The nurses also expressed that the impact of COVID-19 will be felt until a successful vaccination campaign is underway. From the initial response to the long-term risk management, vaccination has been seen important in the viewpoint of the nurse participants. They were incredibly optimistic on getting vaccines and hoping that vaccines will get everyone through the COVID-19 pandemic.

> P11: I am excited and waiting for vaccinations, as well as to myself and these related parties and older people. I hope it will ease the situation.

e) Building resilience through cooperation

Nurse participants described building personal resilience as essential in coping with work stressors, maintaining job satisfaction, physical, emotional self-care and helping to address the burdens imposed by the crisis. It was seen that even within the overstretched and under resourced healthcare environment and other infrastructural scarcity, nurses were working with their positive mind sets in the ward. In addition, nurses' resilience was found through the cooperation and coordination among the nurses during COVID-19 crisis. It had helped them in the transformation of adversity into productive growth opportunities.

> P7: Help and cooperation with each other was critical during the epidemic and the resilience of others was considered.

Nurses were providing care within the constraints of social distancing and finding a resilient way to improve the care delivery. In the agile workforce, they tend to adapt to the new ways of working to the needs of their patients and other staff´s expectations. The operational resilience in managing the available resources and critical materials required to keep the nurses and patient's safety were possible only through the cooperation among the different stakeholders involved in COVID-19 crisis. In this regard, one participant described her coping experiences as -

> P5: I was helping others, being flexible and setting conscience to cope with the situation.
>
> P8: We have encouraged and listened to each other.

5.4.2 Organizational coping mechanisms of nurse

Under the organizational coping mechanism, nurses had reported a mixed result. In their accounts of events surrounding to COVID-19, nurses needed a facilitative environment to feel safe, share their thoughts and experiences while providing solutions necessary for dealing with healthcare crisis.

a. *Support from the nurse manager*

Supportive coping mechanisms were needed during this COVID-19 crisis as explained by the nurse participants. They got support from the nurse manager within the ward. One of the participants said that: -

> P9: I got good support from the nurse manager as well as support from the colleagues when I was at sick leave.

Another one said,

> P1: Nurse Manager has listened if there has been concerns and has been flexible in planning work shift considering wishes and hopes.

Managers and leaders in the psychogeriatric ward had played a significant role in supporting nurses to cope with the pandemic situation. They were providing support to nurses in the course of their service delivery in the care of COVID-19 patients. Nurses have been giving positive feedback about the support they got from the head nurse. Some have mentioned that:

> P1: I think the managers have been flexible in planning the shifts, so it has been possible to plan longer vacations, for example, to cope better. Overtime has been duly compensated.
>
> P2: We were provided with good work environment and proper guidance.

> P8: The ward nurse has been an important support to us. She has been encouraging us. The new instructions have been carefully reviewed with the staff.
>
> P10: They ensured that we stayed up to date with information on any changes in the guidelines. The ward nurse would inform us of any exposures to COVID-19. She was also helpful in guiding us on how to be tested. She made sure that anyone with slight symptoms stayed at home and found replacements for missing colleagues in good time.
>
> P11: The department manager/ head nurse of the department has provided support and encouragement.

b. Workload reduction by transferring COVID-19 patients to other units

COVID-19 had caused a lot of changes and tense in the ward according to the nurses. Nurses were trying different methods of preventing and controlling the disease. At some point, all patients in the ward including symptomatic and asymptomatic were isolated to ease the spread of COVID-19. Other nurse told that later, the positive COVID-19 cases were transferred to the different hospital cited for COVID-19 patients only. Two participants mentioned that: -

> P5: Positive patients were transferred to other COVID designated units.
>
> P13: During the first wave, patients with COVID-19 were sent away to another hospital. The workload reduced.

c. Preventive measures to combat the COVID-19 situation in the ward

Concerns were expressed about COVID-19 and its mode of transmission. When COVID-19 became a common knowledge, nurses identified several issues. Preventive measure to combat the situation were needed to prevent the disease from spreading from one person to another person. Preventive measures that have been used in the ward as per the nurses included hygiene practices washing of hands and using disinfectant, physical and social distancing, wearing of proper protective equipment such as masks, gloves, and monitoring symptoms etc. Apart from general measures, nurses had been additionally taking samples from the new patients and keeping them in isolation until the result is out. To support this, two nurses mentioned,

> P9: COVID-19 samples were frequently taken from the new patients.
>
> P11: Mass testing was done once in summer. We decided to take COVID-19 samples from all new patients.

d. Motivating factors to overcome the COVID-19 crisis

In terms of motivating factors to cope with the COVID-19 pandemic, nurses participants had supportive workmates, availability of quality PPE, good working environment that were ensured by the senior management. Recognition of the nurse's effort and their roles in current COVID-19 were noticed. Rewards and recognition in the field, effective leadership roles, work life balance, good working environment and support from the higher authority were most common motivating factors shared by these nurse participants.

> P1: Good co-workers, sense of responsibility attitude that we will overcome the crisis motivated me.
>
> P4: Good teamwork among co-workers motivated me.
>
> P9: I have received good support. We had provision of Proper PPE. I wish to get more reward from the higher authority.

e. Adherence to infection prevention guidelines

Nurses expressed concerns on adherence to infection prevention guidelines. According to these nurse participants, COVID-19 could be transmitted easily from one to another person in close contact in the hospital. Nurses were at the high risk of COVID-19 infections because of their continuous exposure to the COVID-19 cases and direct contact with their patients in the hospital. Outbreak could occur at various stages including during infected patient care, doffing of PPE, and cross-infection among other healthcare workers or from asymptomatic disease carrier. Nurse participants mentioned that infection prevention control activities are important for ensuring the public health and minimizing the effects on vulnerable. On this regard, one nurse mentioned-

> P3: We were provided with a lot of infection prevention instructions and proper PPE.

Another participant mentioned that restrictions on patient's relatives visit to the hospital, mandatory use of a mask in the workplace, safety distances of two meter in the workplace, limited numbers of staffs in the refreshment room at a time during the breaks, provision of sample test of every incoming patient for COVID-19 as well as COVID-19 testing from the symptomatic staffs, proper hand hygiene guidance and regulations were some measures adopted in the ward to prevent the spread of the infection.

> P9: There were strict rules and adherence to those rules were necessary. There were fewer patients during the worst Corona epidemic since the ward was applying several types of measures to minimize the risk of transmission of COVID-19. There was prohibition of relatives visit as well as there was mandatory use of a mask in the workplace for all. Use of safe distance to 2 m.

> Only six persons could be in refreshment room or other common areas at a time during their breaks.
>
> P13: There were visiting restrictions, no visitors could visit their people at all unless the patient is in critical condition. Follow hygiene guidance and regulations.

5.5 Communication during crisis

Nurse participants have highlighted the importance of effective communication during the COVID-19 crisis in the ward. In the primary phase of the disease outbreak nurses were getting information from different sources, some information was correct, and some were not. In the time of crisis, nurses mentioned that information processing was affected by stress, anxiety, and uncertainty. Fear and other negative emotions also altered the threat perception. Ongoing social context also influenced on how nurses perceived message. Despite of the challenges to effective communications in the beginning, nurses had realized that their leaders had played an important role during pandemic, which was a fundamental leadership skill. The nurse participants reported that they consistently received accurate, timely and relevant safety instructions from their head nurse.

> P2: Safety instructions were received, and crisis communication was done properly to enhance the occupational safety and well-being during COVID-19 crisis.
>
> P3: Safety Instructions were received.

Furthermore, right message at the right time from the right person can save lives of many people in many situations. On the other hand, incorrect information can cause panic and anxiety. According to the nurse participants, leaders have been playing a good role by ensuring that the information was up to date.

> P1: Notices on recommendations, restrictions etc. has been actively disseminated. New information was notified to nurses quickly.
>
> P4: The ward was up to date about the situation.
>
> P10: They ensured that we stayed up to date with information on any changes in the guidelines. The ward nurse would inform us of any exposures to COVID-19. She was also helpful in guiding us on how to be tested. She made sure that anyone with slight symptoms stayed at home and found replacements for missing colleagues in good time.

Moreover, some nurses have shared different opinion on crisis communication and their experiences. During those early days of the COVID-19 pandemic, nurse managers and hospital administrators may have had inadequate coordination and crisis communication to protect the well-being of the nurses. For instance, one nurse participant expressed as -

> P7: Within our own ward, things were handled carefully, but there was a bit confusion in general guidelines and policies in the beginning.

Two participants reported that they felt lack of support and consistent instruction were lacking.

> P5: I did not get support. Communication and dissemination of information was not good.
>
> P13: There were not any instructions that were consistent or logical.

6 Discussion

The main aim of this study was to understand the experiences and well-being of nurses working in COVID-19 settings. The primary objective of this study was to explore the burdens experienced by the nurses working in COVID-19 settings. The secondary objective of this study was to understand the coping strategies of nurses while working with COVID-19 patients. In addition, research questions were what are the burdens experienced by the nurses working with COVID-19 patients in hospital? What are the coping strategies of nurses while working with COVID-19 patients? From the results of this study, five major themes emerged. The five major themes are going to be discussed at length in relation to the literature.

6.1 Emotional burdens

The COVID-19 disease has been around for almost a year now that has left an enormous impact in the healthcare field including other sectors of the society. Nurses across the globe are under a heavy toll of emotional burden. Physical and mental health of the nurses are at the lowest as this pandemic continues. According to ICN (2021), the cumulative number of reported COVID-19 deaths among nurses is 2,266 in 59 countries. Nurses are the biggest work force in the health care sector across the globe (WHO 2020b).

Emotional distress among nurses has commonly been exposed as depression and anxiety among the frontline healthcare staff. Being at the forefront of fighting against the pandemic has come with its fair share of challenges among the nursing staff on various healthcare setups. This exposes them to higher mental distress as compared to other healthcare staff. Nurses been exposed to anxiety and fear associated with the fear of contracting COVID-19 and transmitting it to their families and other individuals considered more vulnerable to the infections (Sethi, Sethi, Ali & Aamir 2020). Exposure to the disease influences the actions and decisions of nurses based on the related exposures to the disease and the associated outcomes. The emotional burdens been exposed to by nurses also relate to the treatment they receive from the members of the public as they are considered at higher risk as

compared to the general populations. Some nurses even face isolation and stigma from the community, as people tend to shun away from any associations with them.

Depression, fear, and anxiety among nurses have also been related to the lack of an approved cure or vaccine for the disease. The changing and mutation of the virus also exposes increasing uncertainties on how to deal with its management. Nurses have experienced increased mental health issues because of the uncertainties linked with the diseases (Ornell et al. 2020). The fear of contracting the virus is also combined with the increasing workload in healthcare setups and the need to attend to adverse nursing needs amidst the uncertainties on the ideal approach of care. Shortage of resources in healthcare has been associated with inadequate protection for nurses against contracting the disease. This is common especially in developing countries where the healthcare system has been strained by the surge in the patient population. As such, nurses have cited the unavailability of adequate personal protective equipment thus exposing them to higher risks of contracting the virus. This has resulted in adverse effects on the nurses' mental health and overall well-being.

Most of them experienced fear and fear is one the factors affecting nurses during crisis. According to Ho et al. (2020), fear and panic among the nursing staff occur because of the threat to their personal lives and uncertainties associated with how they are supposed to manage professionally based on the increasing issues associated with the burden of increasing COVID-19 patients. In the course of their duties, nurses are anxious about their welfare and that of their families. This causes fear and panic, which is a critical element in nurses' mental well-being in the management of healthcare pandemics. As they seek to contain the pandemic and offer quality care for all patients, nurses feel unsafe in the workplace as well as increased fear of infecting their families following exposure to the highly infectious disease. Furthermore, most of the participants cited the fear of becoming infected as well as transmitting disease to the near and loved ones was one of the stressors at workplace. However, most of the participants cited the fear of infecting others remained strongest among them.

From the study, it was also found that some of the nurse participants working in psychogeriatric ward reported high levels of emotional exhaustion and symptoms of burnouts who we were providing care to the COVID-19 patients. The nurse participants had anxiety, fatigue, reduced satisfaction, and low job performances as a physical symptom of burnout. These results are consistent with the literatures of (Khasne et al. 2020). The result showed that the participants were afraid and intimidated by the severity of the disease. The level of perceived threat was found to be higher among these nurses. Since the beginning of the COVID-19 pandemic, the nursing workforce had been under tremendous pressure, which is also confirmed by the publications of (WHO 2020b). The fear of uncertainty, hopelessness, and the threats of severity of the disease as well as fear of getting disease and infecting

others had been noted by millions of nurses across the globe. These significant feelings are relevant in the face of healthcare crisis and had played an important role among our nurse participants in depleting their emotional strength to meet the demands posed by the pandemic emergency.

During the current COVID-19 pandemic, the nurse participants also witnessed the co-workers being infected with the disease and that was the most distressing experience for nurses evoking fear about their own personal vulnerability. That has added mental pressure on them. These findings were coherent with previous finding on H1N1 outbreak in 2009 (Morens, Daszak & Taubenberger 2020).

The result also showed multiple nursing duties as well as a high workload in the hospital, were directly linked to an increased risk of mental and emotional distress. The limited resources, longer shift works, sleep and work life imbalance, occupational hazards associated with exposures to COVID-19 patients had contributed to the adverse effect on the emotional health and well-being of the nurses in terms of posttraumatic stress, insomnia, anxiety and depression (Lasalvia et al. 2021). Hence, it was reasonable among the nurses to experience the apprehensive thoughts due to the burden of the COVID-19 crisis. Our findings also found out that the nurse participants been exposed to stronger anxiety, fear, sadness, and frustration as an apprehensive thought that has further added the emotional distress among them.

Lasalvia et al. (2021) describes emotional exhaustion as related to an individual's experiences of stress that is linked to a reduction in mental and physical resources. From our study, during the COVID-19 pandemic in the psychogeriatric ward, nurses had mixed negative emotions of excitement, doubt, and helplessness. Other dominant findings from the study were fear of being infected and/or infecting families, high mortality rates, grieving the loss of patients and colleagues, separation from families, changes in working practices and procedures, physical strain from prolonged wearing of personal protective equipment also increased the risk of having emotional burdens. These heightened amounts of emotional burdens experienced by nurses of psychogeriatric ward had the similar results in a cross- sectional study conducted in a tertiary hospital of a highly burdened area of COVID-19 in north – east Italy (Lasalvia et al. 2021).

The finding from our study had clearly depicted the workplace stress among these nurse participants. Other emotional burdens included feelings of remorse and self-blame being COVID-19 situations for longer times without having any control over it. On the other hand, nurses were afraid and guilty that they might infect their families and loved ones. The emotional exhaustion due to continuous exposure to long working hours, health threats, poor crisis communication in the organization, and lack of knowledge of COVID-19 pandemic may

have led to formation of negative emotions (Lapum, Nguyen, Fredericks, Lai & Mcshane 2021). This could further lead to the lower personal accomplishment and detachment from work due to the lack of energy. Low professional efficacy and lack of productivity were also experienced by the nurses due to emotional distress however nurses expressed that they had strong sense responsibility that came along with the nursing profession in our study findings. Their emotional experiences reaffirmed their dedication to nursing job they do.

Nurse participants in our study shared their feeling of fear, isolation, anger, frustrations as they reflected on how their unrelenting thoughts of catching the virus and infecting others compelled them to forego visiting their families and friends. The emotional toll of all these events left many nurses in our study exhausted, but seeing their patients struggle in isolations, motivated nurses to stay and work in solidarity and care patients with greater empathy and compassion. The findings from this study have highlighted the importance of supporting and enhancing nurse's emotional well-being during an event of health care crisis.

6.2 Physical burdens

The global nursing workforce includes 27.9 million nurses, accounting for 59 percent of total healthcare professionals worldwide (International Council of nurses 2020). Among them, many nurses are working in the COVID-19 frontlines. COVID-19, a new infectious disease of global concern needed more supportive nurses and nursing care than ever before due to the increasing number of COVID-19 patients. Therefore, the nurses have heavy workloads in the overall COVID-19 patient care from comprehensive assessment to the prevention of potential complications regarding the disease. The study findings also depicted the unparalleled work pressure and threat among the nurses in this ongoing COVID-19 pandemic crisis. Nurses have a high risk of contracting COVID-19 given their constant exposure to the people infected with the virus. The healthcare system can become further strained when medical providers and staff contract the virus, not only adding to the patient load, but also reducing provider capacity to care for patients (ICN 2021).

The constant fear of exposure with COVID-19 and months of constantly working under the pressure have placed the nursing staffs on the verge of physical exhaustion and breaking. Majority of the nurses from the study reported of mental health distress and burnouts along with the feelings of isolation from their families and societies. The nurses in the study reported having increased working hours and expressing physical fatigue due to increasing workload in the ward.

The cross-sectional study conducted in Iranian Hospital on "COVID-19 effects on the workload of Iranian healthcare workers" showed the nurses who encountered in care of COVID-19 patients were subjected to more workloads compared to those who had no contact with COVID-19 patients at the workplace. The nurses in COVID-19 patient care also scored more

scores in mental pressure, physical pressure and time pressure compared to the other job. Other result also showed that nurses had significantly more workload compared to the other jobs. (Shoja et al. 2020.)

The nursing staffs in the psychogeriatric ward continuously worked with high work intensity and under pressure with memory impaired geriatric patients. Previous medical history of having multiple disease and diagnosed with COVID-19 in addition, needed comprehensive and specific management in the ward. It indicated that the intensive nature of the work drained these nurses both physically and emotionally. Often, there were other physical challenges in adherence to infection prevention guidelines and working using PPE under different circumstances. In line to our findings, the study conducted by Lucchini, Giani, Elli, Villa, Rona and Foti (2020) also supported a 33% increase was in the nursing workload among those who worked with COVID-19 patients in Intensive care unit (ICU).

It is evident that during the COVID-19 pandemic, the nurses are at higher risk of exposures. The proper use of PPE is essential to reduce the exposure to COVID-19 among the staffs in the hospital. On the other hand, current findings additionally showed the mandatory use of PPE significantly increased the cases of physical fatigue and nursing workload in the unit.

Nurses have been exposed to various adverse effects of the disease on their physical aspects. As a result, nurses have had to work long shifts, work on unfamiliar units and face exhaustion and burnouts in the process. This has been associated with adverse effects on their physical health including troubled sleep, physical exhaustion, and work-related dread. Other features associated with the management of COVID-19-related cases include lack of appetite, physical symptoms including headaches, stomach aches, and feelings of tiredness and exhaustion from long shifts, and the need to attend to the surging number of patients in wards and even through other units. (Sharma, Hossain, Purohit, Bhattacharya & Sultana 2020.) From the nurse's description in this study, showed that the nursing care of patients with COVID-19 is difficult and tiresome. In addition, they experienced the variety of patients care need and limited number of staffs increases the physical fatigue and workload.

The major stressor affecting nurse's physical well-being are cited to include uncertainties associated with when things may go back to normal, burnouts, and heavy and increased workload with limited time for adjustments and learning. Burnouts in the healthcare settings following the emergence and spread of COVID-19 have also been associated with working long hours and using uncomfortable and cumbersome personal protective equipment. (Sharma et al. 2020.) Additionally, nurses in this study had to keep up with emerging knowledge, changing PPE recommendations, regional and institutional procedures, and the need to adopt new technologies to meet patient needs and care responsibilities. The need for all these adjustments without sufficient time to adapt to such enormous changes has been associated

with an adverse impact on nurses' physical health and the overall outcomes in their well-being. In the process of caring for COVID-19 patients, the study findings showed that nurses have contracted the virus and have been ill themselves. As a result, many have succumbed to the disease. Being at the forefront, nurses are exposed to more risks of infections and related complications.

6.3 Social burdens

While COVID-19 has affected several aspects of human life, nurses and other front-line workers have had to deal with the first-line effects of the infection. According to the researchers COVID-19 had adversely affected the work-life balance for healthcare staff especially nurses who play a critical role in managing the pandemic at the forefront. Nurses have had to stay longer shifts to address the rising cases of patients and meet the healthcare needs of various population groups. As such, nurses have had little time for their families and close relatives. This is affecting their social well-being and health. The fear of infections of their loved ones following their exposure to patients has also been associated with the nurse's isolation from their close friends and families. Isolation as a result of the foregoing circumstances in the fare of COVID-19 cases has resulted in adverse effects on their social well-being (Hennein, Mew & Lowe 2021). Nurses have also cited discrimination and stigma as a result of their close associations with the COVID-19 patients. Some have been shunned by friends and families for fear of contracting the virus since they are exposed compared to other population groups (Singh & Subedi 2020). The stigmatizing attitude towards healthcare professionals as a result of the higher risks of exposure and infection has been associated with increased feelings of psychological stress, exhaustion, and post-traumatic stress associated with the fear of contagion of family members and prolonged social isolation.

According to the literature published during SARS and Ebola epidemics, it was found that nurses were often ignored, dismissed, and stigmatized as a result of their alleged exposure to the virus. This social stigmatization has a negative impact on nurses' personal lives and emotional well-being as they can experience embarrassment, anxiety, and loneliness and guilt (Lasalvia et al. 2021). Many nurses and other healthcare workers have also reported stigma from the public which has caused a negative effect on their relationship with the job by decreasing the sense of efficacy and disengaged attitude towards their job (Bagcchi 2020).

Social reinforcement decreases fear, depression, and improves self-efficacy. Social reinforcement can help these nurses relieve anxiety when friends and family members offer social and emotional support and express empathy. Social support help to alleviate negative feelings including anxiety and boost the mood of healthcare staffs including nurses. (Xiao, Zhang, Kong, Li & Yang 2020.) Our findings echoed during the COVID-19 patient care nurses

are required to work under proper isolation using PPE for longer times that has caused increased stress level among nurses.

In the face of this COVID-19 crisis social support and reinforcement is found to be helpful in relieving tension by mitigating the perceptions of threat of a traumatic situation, as well as the psychological reactions and improper behaviour that can occur as a result of stressful situation. Social support contributes to improving self-efficacy, leading to more understanding, respect, encouragement, courage, and a sense of professional achievement (Segrin & Passalacqua 2010; Zhu, Sa & Wu 2016). Increase in stress can increase the levels of vigilance regarding the COVID-19 patient care. Anxiety has been shown to increase sensitivity to work pressure and the work-working environment and has negative effect on self-efficacy because it reduces positive behaviours and initiatives. (Xiao et al. 2020.)

6.4 Coping strategies

Coping generally refers to the adaptive strategies implemented to reduce the stress. Coping can be defined as a series of cognitive and behavioural efforts to manage the specific internal or external issues that test or exceed individual resources. Coping strategy may be defined as adaptive when controllability of the stressful event corresponds with the choice of the strategy. (Vagni, Maiorano, Giostra & Pajardi 2020.)

Coping with COVID-19 required a layered response from organizations and individuals. From the findings, nurses prioritized the need to take care of each other through working in teams and being each other's keeper. This enabled them to identify challenges and adopt intervention strategies to enhance the quality of care provision and well-being of the nurses. The similar findings were also supported in articles published by (Huang et al. 2020). Additionally, these nurses had cooperation with other healthcare providers including managers and other professionals involved in the provision of care.

The study findings pointed out that there is still a need for nurse to prioritize their well-being amid pandemics. They need to pay attention to their physical needs and essentials such as rest, sleep and sufficient break times. The unit adopted suitable measures to help nurses reduce their anxieties, stress, depression, and panic through a proper coping strategy. That included emotion-based copings. Emotion based coping supported nurses to concentrate on the prevailing emotions and their well-being.

Our observations brought together what is understood in the literature of nurses' experiences during global pandemic. As a result, it is critical in informing support plans to optimize the nursing workforce during and after the latest COVID-19 pandemic in the hospital. In the past decades, the world has seen many infectious disease outbreaks including SARS in 2003, H1N1 in 2009, Ebola, Zika, and MERS in 2014 and 2016 (Morens et al. 2020). Nurses who cared for

infectious patients during these disease outbreaks experienced high levels of physical, emotional, and social burdens (Zhang et al. 2020). Much research related to healthcare workers and COVID-19 has shown that nurses were exposed to an extremely stressful environment. The unknown and uncertainty brought by COVID-19 have aggravated burden and increase stress among nurses while fighting the epidemic. From our study findings, it was noted that, common individual coping strategies adopted by the nurse participants to cope with COVID-19 burdens in this study were collegial support, humour, optimism, sense on being in similar situation, sense of positivity amid COVID-19 crisis and resilience through cooperation. Nurses expected to get the support from the hospital managers; adequate material supply; government allowance; clear instructions on care procedures; and adequate knowledge of COVID-19 disease to tackle the current situation.

Most nurses actively engaged in individual coping strategies. However, to support nurses' emotional, physical and social well-being, morale support measures such as management support, material support, and allowances was needed. These recommendations were mentioned by the nurse participants of the study. Other coping strategies were team leaders' support and an adequate supply of materials. In addition, many nurses voiced together for incentives, bonus, hazard pays and dietary supplies to be implemented to recognize their effort in the time of pandemic.

Team support enabled nurses to feel safe, valued, and welcome. Managerial support was seen critical for the provision of resources necessary for enhancing effectiveness in patient care and reducing the stress and burnout experienced by nurses. Their critical roles in supporting nurses to cope with the COVID-19 pandemic had ensured optimization of resources for better management of COVID-19 patients in the ward. Other study has been reporting the coping strategies nurse were adopting to overcome the COVID-19 stress are adhering to preventive measures, actively learning about the new diseases, learning professional knowledge, adjusting attitude and facing the COVID-19 epidemic positively, being in contact with friends and families (Zhang et al. 2020).

In this study, these nurses recognized the value of looking after their co-workers and sharing the workload even in the difficult situation. Some nurses got their experiences to serving on other epidemics, such as seasonal influenza in which they collaborated as a team to protect one another. Sharing their views, desire to work together, and fostering a team spirit reflected their appreciation for their nursing colleagues. Professional collegiality therefore as one of the individual coping strategies was observed among these nurses. As suggested by Watson (2020), team support can be enhanced by respecting individuality, giving recognitions and seeking out opportunities to reframe the negatives and boosting each other’s others well-being. During working through a pandemic, these nurse participants had a high level of mutual confidence and friendship with each other.

From the findings, it was also seen that nurses have professional collegiality and deep sense of responsibility for their patients even in the time of crisis despite their anxiety, insecurities, and frustrations as they mentioned under emotional burdens. Nurse's sense of responsibility to their COVID-19 patients outweighed their conflicting roles and responsibilities to their family members and the risk of being exposed to the disease. As a result of clear sense of responsibility and desire to do the right things, the nurses felt strongly continuing their services in the face of pandemics. Theses virtues did not prevent them from having worries and doubts for them and their own family's welfare. Their practices during crisis place them in mortal danger but they acknowledged the impacts of burden with higher sense of duty and responsibility with mutual trust among their colleagues.

Nurses have a leading role in facilitating communication and collaboration among the team members. Mutual trust and respectful environment can be developed, efficient communication can be maintained when the roles of the individual nurses and team are clarified. A sense of belongings was fostered through the positive humour among the co-workers. Positive humour is full of optimism, playfulness and self-enhancing compared to negative humour. Light and kind-hearted humour minimizes anxiety and improves emotional and psychological well-being. (Golger 2018.)

Hence, positive humour was considered to be a more efficient stress reliever among these nurses, and it had therapeutic benefit that allowed nurses to vent grievances, potentially preventing burnout. In this study, nurse participants used humour as other individual coping strategy that offered a creative way for them to cope with stressful circumstances by allowing them to appreciate the funny facets of their everyday tasks even in the difficult time. The results furthermore uncovered the optimism and resilience among the nurse participants. Resilience is the ability to bounce back easily from adversity (LoGiudice & Bartos 2021). Resilience in the workplace context showed that the concept is useful in protecting individuals from workplace stress.

In this study, it is focusing on an innate ability of nurses to overcome workplace stress and a process of positive adaptation based on the adversity. The reaction occurs at different life stages and depends on the presenting situations (Cusack et al. 2016). For resilience to be demonstrated, both positive adaptation and adversity must be considered. This means that adversity is the primary antecedent of resilience, and the main consequence is positive adaptations. In conceiving resilience as a trait, it represents the constellation of characteristics that enable individuals to adapt to various circumstances in their day-to-day activities. This is associated with individuals' ability to possess positive protective factors such as hardiness, positive emotions, extraversion, self-esteem, self-efficacy, and positive affect (Fletcher & Sarkar 2013). In this study, the findings showed that nurses have been involved and interacting in various protective mechanisms across different levels, these include

support from managers, co-workers, and practical coping skills among individuals. They found out positivity and emotion-based coping. Sense of unity in the middle of health crisis could bring resilience. The mediating role of resilience between coping and subjective well-being was seen in other studies conducted by (Ziarko, Mojs, Sikorska & Samborski 2020; Lorente, Vera & Peiro 2021). Individual coping strategies and self-care behaviours were used by the nurses in this study to explain resilience. The principle of resilience was developed by collective collaboration, which assisted them in overcoming the adversity.

According to the technical report published by the European Centre for disease control and Prevention (2021), there should be proper resources and procedures to address: (1) Infection prevention and control measures (IPC), supplies of PPE and trainings; (2) COVID-19 Surveillance; (3) Testing and monitoring of COVID-19 for early outbreak detections and control; (4) Access to psychosocial care and visitor's restrictions in the health care facility.

The findings of the current study also showed the delivery of secure, efficient, and high-quality health care relied heavily on effective IPC measures that were prevalent in the ward. IPC measures in psychogeriatric ward included administrative procedures, physical distancing, hand washing, and proper use of personal protective equipment (PPE) as reported in the data. Majority of nurse participants reported that to avoid the possible transmissions of COVID-19 from the patient relatives and visitors, patient visits were prohibited for the time being in the wards. They were only allowed when there was critical situation, and during that time, they were guided to practice physical distancing, hand hygiene, and wear facemasks if physical distancing is not feasible. Adherence to infection prevention guidelines was strongly seen in the ward as these nurses were provided with proper instructions and PPE. Other nurse participants expressed proper logistic supplies were present in the ward.

During the large impact of COVID-19 on global perspectives, these administrative interventions lowered rates of outbreaks by reducing the disease transmission among co-workers inside the psychogeriatric ward. These guidelines were also seen as the organizational strategies to enhance the well-being and prevent the nurses from nosocomial infections.

6.5 Communication during crisis

Communication is a basic leadership ability that becomes much more evident in the times of health care crisis. Communication is characterized as "transferring thoughts, facts, sentiment, and ideas from one person to another through gestures, speech, symbols, signs, and expressions." Leaders recognizes the value of information dissemination and are committed in creating a mechanism that is both efficient and reliable. Hospitals and hospital facilities must be able to communicate information in a flexible and timely manner. (Eldridge, Hampton & Marfell 2020.) One of the results of this study evidenced that there

were frequently new guidelines, recommendations, and restrictions in the ward. Assimilation to this ever-changing information was exhausting in the beginning.

Communication in times of crisis must convey direct and concise messages (Cohan 2020). The importance of consistent messaging from leaders should be stressed to reduce uncertainty and increase interpretation of critical orders. Since leadership correspondence can be delivered in a variety of ways, leaders must pay close attention to the details to ensure message continuity in all approaches. (Eldridge et al. 2020.) Head nurse and other head of departments in this study finding were up to date with the evidence and serve as the primary source of information during the situation and provide daily reports to all those involved.

Nurse participants have highlighted the importance of effective communication during the COVID-19 crisis in the ward. In the primary phase of the disease outbreak nurses were getting information from different sources, some information was correct, and some were not. In the time of crisis, nurses mentioned that information processing was affected by stress, anxiety, and uncertainty. Fear and other negative emotions also altered the threat perception.

Crisis communication is an on-going process, which focuses on an event which has occurred, or which might occur (Bourrier & Bieder 2018). Effective communication is key to healthy relationships and the availability of information necessary for informed decision-making during a pandemic. Isolation associated with the pandemic had adversely affected communication and interaction between various parties, hence effective communication. Additionally, the availability of unverified information might result in increasing panic among employees thus affecting their overall well-being. The affective and interactive channels of communication must be put in place to ensure that all the critical stakeholders are informed about the development of the pandemic (Reddy & Gupta 2020). Additionally, this allows for information sharing on suitable intervention measures to support optimal management of the pandemic in the face of increasing anxiety associated with misinformation. Leaders plays an important role during pandemic, which is a fundamental leadership skill. Good communication should be accurate, timely and relevant. According to the nurse participants, leaders have been playing a good role by ensuring that the information was up to date.

Good crisis communication plan ensures that information is available and accessible to stakeholders to inform decision making necessary for the management of the current crisis, crisis communication plan entails a set of guidelines used in preparing an organization or healthcare facility to respond to emergencies or unexpected events. The program supports the prompt release of information as well as the consistency of messages on identified organization's frameworks. (Quinn 2018.)

Clear and consistent communication is an important aspect of leadership during crisis. The findings from nurses' participants demonstrated that they have consistently received safety

instructions from their head nurse. Knowledge sharing among healthcare staff also supported informed decision-making during a crisis. Healthcare institutions creates platforms to encourage collaboration and interaction between diverse healthcare disciplines for a better understanding and management of the current situation (Kapoor, Guha, Das, Goswami & Yadav 2020).

When looking at crisis management plans, there is often failure to address many communications issues related to crisis responses, some nurses have shared different opinion on crisis communication and their experiences. This inconsistency may be due to the perceived level of threats. During those early days of the COVID-19 pandemic, nurse managers and hospital administrators may have had inadequate coordination and communication to protect the well-being of the nurses. Other participant felt lack of support. Lack of effective leadership and communication will leave nurses feeling unappreciated, isolated, and devalued in the face of crisis. In this study head nurse played an important role at and stage of the communication process by ensuring that the message was correctly received and then simply restated using the required medium for communications.

Inconsistent messaging from experts is a frequent pitfall in crisis communication, according to the Crisis and emergency risk communication (2018). Leaders must gather knowledge from reliable sources, comprehend it, and deliberately disseminate it in a way that is consistent with the message of the original specialist. Six main concepts for leaders to remember when disseminating facts have been established by crisis communication experts: "be first, be correct, be credible, demonstrate concern, encourage action, and display respect." In times of disaster, information must be delivered quickly, and for certain people, the first source of information becomes their primary source (CERC 2018).

In this study, the nurses participants had felt that the leaders had creates confidence and rapport by understanding struggles and feelings of frustrations while demonstrating empathy. They also encourage action by aiding nurses in gaining a sense of balance in their current position to maintain order, calm fear and connect the main relationship values to encourage harmony and calmness when nurses were at their most vulnerable in the workplace.

6.6 Miscellaneous

According to deviant case, every piece of data has to be used until it can be accounted for. This is when the existing data will not produce sufficiently coherent or when it does not fit current understanding of phenomena (Silverman 2013). While searching themes from the data, it came to the writer’s notice that some meaning units and codes did not seem to fit or belong anywhere. As suggested by (Nowell et al. 2017; Braun & Clarke 2006) all data and codes gathered from the participants should be included in the study. In this study, miscellaneous meaning units that did not fit in certain themes were included in the

discussions. In addition, seemingly insignificant themes could contribute significantly to the studies discussion. For example, in the study, majority of the participants were mentioning that the workload had increased in the ward due to COVID-19 but one participant had different opinion that did not fit in the sub theme “Increase in workload”. She felt that there was not much difference in the workload during COVID-19 in the ward. On the other instance, majority of nurses reported that they experienced fear of getting infected and transmitting the disease to their near ones, but one nurse mentioned that she did not experience fear because she is healthy and in good condition. Apart from that, she had strong annoyance on having restrictions and limitations. Rules and regulation on isolation precautions were practiced extensively that made everything much more difficult in her opinion. Another nurse also felt that better regulations and legislations would have avoided the whole COVID-19 situation in Finland.

6.7 Ethical considerations

A good research environment allows the author to abide with criteria for proper research behaviour, to amplify the quality and tenacity of research, and to acknowledge to the threats or violations of research integrity adequately. In this process, the knowledge is sought through the systematic study of the research, observations of nurse’s experiences that involved in direct collaboration with the healthcare organization and are derived by freedom to define research questions, gather information, and apply the appropriate method. The writers have certain responsibilities, abide to the code of conduct, and were accountable for developing their research ideas from the assistance of research mentors. (The European Code of Conduct for Research Integrity 2017.)

An easily understandable written consent form (Appendix 1 & Appendix 2) was taken into practice that described the rights of enrolled study participants. Thesis timeframe, title of the thesis, writers involved, purpose of the research, description of the research, statements of confidentiality, data collected, time period for storing the data as well as information on who can access it and conflict of interest was clearly mentioned (World Health Organization 2011).

Furthermore, the relationship established between the writers and the study participant in a qualitative research involved a range of ethical concerns. Respect for privacy of the participants, setting up honest and open interaction was created whereas misinterpretation was avoided. No personal information was revealed. Informed consent is an integral part of the ethics that emphasizes the responsibility of the researcher to inform their participants on the nature of the study, the participant’s potential roles, the objectives of the study and how the results will be published and used afterward. The writers followed the principle of no harm and were aware of the potential harms that might be inflicted upon the study

participants during the process (The European Code of Conduct for Research Integrity 2017; Finnish National Board on Research Integrity TENK 2019).

The fundamental principles of the research integrity assisted the writers in ensuring the quality of the research, research design and its methodology. The writers were bound to developed, undertaken, reviewed, reported, and communicated the results in an unbiased, fair, and transparent way. The confidentiality of data as well as the identity of the participants were maintained legitimately. Consideration was taken in account to safeguard the interest of the participants from the potential harm regarding the research. (TENK 2019.)

The writers were committed to the research community in refereeing, reviewing, and evaluating the data. Keeping track of the resources, paraphrasing, giving the credit to the original authors in an in-text citation and organizing proper reference lists were maintained to avoid plagiarism. (The European Code of Conduct of Research Integrity 2017.)

In this study, the ethical principles and General Data protection regulations GDPR were adhered to. Permission to collect the data in psychogeriatric ward in city hospital of Helsinki region was sought through a duly filled application form. The permission for this study was approved by Helsinki City and the head nurse of psychogeriatric ward. Consent form (Appendix 1) and (Appendix 2) were given to the voluntary nurse participants to be filled before the collection of the data. Data collection was treated with confidentiality. During the data collection process, the writers protected the identity of the participants by using numbers instead of their names throughout the research process to preserve anonymity and safeguard confidentiality. After the publication of the thesis, the hard copies of the data will be destroyed in a confidential shredding machine in Laurea Tikkurila Library in December 2021.

Clear consent is the foundation of ethical science (Denzin & Lincoln 2011). Nurse participants were sufficiently briefed of what will be asked to them, how the data will be used, and the potential implications of it. Participants were provided with clear, active, consent letter to participate in the study, which included knowing their rights to use their data and the ability to withdraw at any time. The voluntary participants were given the consent form (Appendix 1 & 2) to be filled before the actual collection of the data. The ethical issues of informed consent, risk of harm, confidentiality and anonymity, and conflict of interest were considered and presented with a data management plan on how these ethical issues would be managed.

The data were collected manually hence, the access to the data were preserved within the reach of two writers and the supervisor of the study only. The storage of the data happened through the password protection, only the writers had access to the original survey data. Separate working copies and backup copies were created in two different computers to avoid the data loss from unfortunate accidents or partial deletions of the file, or the damages

caused by viruses. The final study report will be published in the University of applied science Theseus database. Media release will be done as a part of the maturity test. The data will be stored until the final thesis is published and six months after the publication.

6.8 Quality of the study

In qualitative research, the outcome of the study can be evaluated by reliability and validity. Reliability refers to the degree of consistency with which instances are assigned to the same category by different observers on different occasions, whereas validity refers to the credibility of the interpretation (Silverman 2013, 284). Reliability and validity are two critical components in the determination of the applicability of research to similar circumstances and diverse population groups. It is associated with the ability of other researchers to come up with similar results using identical research methods and conditions (Zohrabi 2013). The current research can be said to be reliable based on the adoption of suitable research tools as well as an objective approach to understand the experiences and well-being of nurses working in COVID-19 settings.

The use of questionnaires is vital and supports the validity of the research based on the ability of the research tool to support the provision of critical information to achieve content validity. Additionally, the study was based on the participant's confidence to answer questions without undue pressure in any way during the provision of answers to the interview questions. The current study, therefore aimed to consign the validity by addressing the nurse’s experiences during the COVID-19 crisis.

Trustworthiness is a critical element in qualitative research as it supports an in-depth understanding of research and promotes familiarity of a study among researcher (Nowell et al. 2017). Trustworthiness allows writers to believe that their research on a given subject matter is worthy of attention. The concept considers various elements such as credibility, which is associated with the fit between the views of the participants and the representation of such views by the writers. It is achieved through persistence in observation, triangulation of data collection, prolonged engagement as well as triangulation of the researcher. (Nowell et al. 2017.) The adoption of these core elements supports the trustworthiness of research.

A thorough thematic analysis could yield reliable, informative, and trustworthy results. The flexible approach as it is, it could be modified as the need of the study to understand the complex account of the results. That is gained through its theoretical independence. As opposed to other approaches, a simplistic thematic analysis has drawbacks that it does not enable writers to make statements about language usage and having less background knowledge and theory on this kind of approach. (Nowell et al. 2017.)

It is recommended that qualitative researchers conduct their study in a formal and structured manner to enhance the validity. Throughout this study process, the writers attempted to be as thorough and structured as possible to maintain the trustworthiness of the qualitative research. The procedures for fulfilling the trustworthiness criteria as proposed by Nowell et al. (2017) credibility was addressed by prolonged engagement in the data and persistent observation of the data to find the legitimate experiences from the nurse participants. The "fit" between participant's opinions and the writer's interpretation of the data was referred to as credibility (Nowell et al. 2017). Hence, to demonstrate the trustworthiness of the study's findings, the findings aimed to depict the real lived experiences of the nurses as obtained from the data in a best possible way.

According to Nowell et al. (2017), transferability refers to the generalizability of inquiry. It is a responsibility of a researcher to facilitate the transferability judgement to the potential stakeholders through the thick descriptions of the data. The different phases of thematic analysis first started with familiarization of the data then initial coding. To produce the reliable sub-themes and themes from the coding, a systematic analysis of the data was done. The data were coded inductively as the themes were derived from the data to produce the thick description and interpretations of the data driven themes.

Dependability was aimed to achieve by adopting a rational methodology for analysing the data. The method is traceable, logical, and well- documented. Writer's interpretations and assumptions were drawn from the evidence, and it necessitated the writers demonstrating how conclusions and explanations were reached throughout the entire study to ensure the confirmability. Reflexivity also demonstrated the trustworthiness as it is the practice of critically reflecting on one's own beliefs, interests, and preconceptions, as well as the writer's relationship with the participants and how that relationship influences the participants' responses to the questions.

6.9 Limitation of the study

As with the majority of studies, the current study was also subjected to limitations. Thirteen nurses had participated in the data collection process. The inclusion of the nurses was uneven seeing the number of nurses working in the research setting. Secondly, not all nurse participants answered the open-ended survey questionnaires in a full length. Some participants used short phrases to describe their experiences in response to the survey questionnaires. There was lack of response to the questionnaire due to perceived bias such as the COVID-19 questionnaire response crisis. The perceived experiences of thirteen nurses might not represent the whole voices of nursing populations. A larger number of participants may have resulted in a more varied response and greater generalizability. However, accumulating more data does not always imply the acquisition of new knowledge. Data

saturation was gained when there was no new information obtained from the participant´s responses. Fuss and Ness (2015) also explained that a smaller study could achieve the data saturation faster than the larger study. The primary plan was to conduct the interview from the participants. Research permission approval took longer time than expected. COVID-19 crisis and delays in permission seeking from the Helsinki city made the writers change their preliminary plan.

Furthermore, other limitation was in the use of language. Both writers are not native Finnish speakers. Out of thirteen nurse participants, eleven participants had answered study questionnaires in Finnish language. Both writers having foreign background are working in Finnish Hospital settings, however both felt some degree of difficulty in translating the Finnish language to English. The language translations immediately happened after finishing the data collection process. It took approximately one week to translate the data to English language. In practice, the concepts that would take a whole sentence to articulate in English language could be expressed in a single word in Finnish. Some participants were answering the questionnaire using one word. For example, “Väsynyt”

There were situations where some Finnish words have dual meanings. The Finnish word “antaa” would give meaning as “to give” or “to allow” depending upon the context. Some participants had mentioned the word “Jännittävää”. In normal English translation, this word would mean exciting but here “nervous” would have been appropriate translation. Similarly, the writer had little bit of confusion in understanding the word “huono omatunto”. The English translation would mean something different from what the participants really meant in the nursing context. Subtle differences in meaning were acknowledged. To avoid other language ambiguity in actual translations, the writers had sought help from the Finnish co-workers by asking these words in a general context. Use of online MOT dictionary was extensively used too.

7 Conclusion

The emergence and the spread of COVID-19 has affected the nurses’ health and well-being. From the findings, emotional, physical and social well-being of nurses were affected. The deteriorating health of nurses and organizational challenges in the management of the pandemic were cited as critical components in the successful management of the pandemic. The nurses who took part in this study experienced considerable health burdens caused by COVID-19 pandemic. Occupational well-being and safety were overlooked in the COVID–19 crisis. On the other hand, the majority of the nurses sought support from individuals’ colleagues and from the organization to help them cope with the pandemic. Most of them

applied the knowledge from the previous crisis to help the deal with COVID -19. Effective communication was also considered critical to ensure an informed decision-making.

In addition, the findings of this study indicated that many nurse participants were in dire need of assistance from their organization. During the COVID-19 healthcare crisis, it was a vital opportunity to understand nurse's importance and their major roles to support their well-being as they are always on the frontline during crisis. The organization should offer a meaningful support to enable them build perseverance and strong resilience in the nursing workforce especially during crisis.

To prevent the shortage of nursing workforce from the healthcare sector in coming future, healthcare sector should develop strategies to address their social and physical needs, alleviate mental health threats, and behaviour, as well as the consideration of potential interventions for holistic wellness during and after crisis. In prospective research, the short- and long-term effects of pandemic like COVID-19 should be studied in the future.

8 Recommendations

Nurse's job commitment can be increased by taking appropriate steps to reduce their infection risk during pandemic crisis. The workload, performance, and frustration of nurses caring for COVID-19 should be highlighted to motivate their work commitment. Some of the recommendations suggested by the nurse participants in the study were as follows: -one, nurse managers in the ward should be highly visible and approachable; two, clear and regular communication with the staff is important to acknowledge them; three, nurse managers and leaders were expected to be honest and approachable; four, staff's well-being should be a priority; five, mandating and monitoring work breaks, encouraging opportunities for the staff to support each other and to ensure that individual support is accessible to all the staff; and lastly, the need to cater for the incentives, bonuses and hazard allowances to the staff was also recommended.

The overall recommendation from this study is for the organizational leaders and hospital managers to provide resources to the nurses to improve their mental and emotional well-being ahead of time. Managers should recognize the diligence of nurses and devote greater attention to infection prevention and physical discomfort caused by PPE to improve occupational safety for nurses. The organization should adopt the lesson learnt during the crisis with a holistic consideration of nurse's occupational safety, physical, social and emotional well-being. The managers should honestly convey the facts, developing the coping skills and raising awareness of potential mental health issues. Nevertheless, they should actively monitor whether essential safety needs of their staffs are being met and all the

shortcomings addressed i.e. PPE, staff sickness, testing and other issues of concern to staff. They should also plan long-term support programmes for staff recovery. Furthermore, a comprehensive support should be provided by the hospital administrations and organizations to lessen the burdens related to COVID-19 and promote the well-being of nurses working in COVID-19 settings. Finally, an adequate understanding of COVID-19 could boost nurses' morale, with the provision of adequate crisis response support.

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Appendices

Appendix 1: Participant consent form

Title of the study: Burdens experienced by nurses: Well-being and Coping strategies During COVID-19

Location of the study: Psychogeriatric ward of a city hospital in Helsinki region

We Binu Acharya and Monica Cheruto Ronoh are master's degree students of Global Health and Crisis Management faculty at Laurea University of Applied science, Tikkurila. We are currently working on our Master Thesis and Our Master Thesis topic is "Burdens experienced by nurses: Well-being and Coping strategies During COVID-19". We are interested in exploring the overall experiences of the nurses who are working with COVID-19 patients, its burden, and coping strategies of nurses during the current COVID-19 situation. We planned to conduct open-ended questionnaires survey in the psychogeriatric ward. Through this study, we are hoping to have a better and in-depth understanding of nurse's experiences and knowledge regarding current COVID-19 scenarios.

The written interview will be held in English/Finnish. The constructions of open-ended questionnaires will guide the participants to answer it. The hardcopy of the written interview document will be collected and kept safely only in the reach thesis supervisor and the two writers. We will consider the appropriate security level concerning the destruction of data according to GDPR 2016. The documents will be destroyed permanently when the study is evaluated and completed. The participation is entirely voluntary and is free to withdraw the consent at any time without giving any reason. By following the ethical guidelines and research integrity, Personal Identification information of the participants will not be recorded in any databases to ensure the confidentiality of the information as well as the anonymity of the participant. Once the study is completed, the final thesis will be published in Theseus database.

By signing this consent form, I voluntarily accept to participate in the study. I had acquired sufficient information regarding the purpose of the study and had sufficient time to consider my participation in the study, hence I give my full permission to utilize the interview document for the purpose of the study.

Date

Signature of the participant

Appendix 2: Osallistujan suostumus lomake suomeksi

Tutkimuksen nimi: COVID-19:n aiheuttamasta sairaanhoitajien kokemat kuormituksesta, heidän hyvinvoinnistaan ja selviytymisstrategioistaan.

Tutkimuksen sijainti: Helsingin Kaupungin sairaalan psykogeriatrinen osasto

Olemme Binu Acharya ja Monica Cheruto Ronoh Laurean Ylempi Ammattikorkeakoulun (Global Health and Crisis Management) opiskelijoita. Teemme oppinnäytetyö COVID-19: n liittyen hoitajan kokemuksesta. Olemme kiinnostuneita tutkimaan COVID-19-potilaiden kanssa työskentelevien sairaanhoitajien yleisiä kokemuksia, sen taakkaa ja sairaanhoitajien selviytymisstrategioita nykyisessä COVID-19-tilanteessa. Tämän tutkimuksen päätavoitteena on ymmärtää COVID-19 ympäristössä työskentelevien sairaanhoitajien taakka. Ensisijaisena tavoitteena on tutkia sairaanhoitajien fyysistä, sosiaalista ja henkistä hyvinvointia, jotka liittyvät COVID-19: sta. Toissijaisena tavoitteena on tutkia sairaanhoitajien selviytymisstrategioita työskenneltäessä COVID-19-kriisissa. Pyydämme kohteliaasti kaikkia sairaanhoitajia mukaan tutkimukseen. Osallistuminen on täysin vapaaehtoista ja sairaanhoitajat voivat vapaasti peruttaa suostumuksensa, milloin tahansa ilmoittamatta mitään syytä.

Aineston tiedonkeruu tapahtuu englanniksi/suomeksi ja suoritamme lopputyöt englanniksi. Tässä kvalitatiivisessa tutkimuksessa käytetään tiedonkeruussa avoimia kysymyksiä sisältäviä tiedonkeruulomakkeita. Lomakkeen rakenne ohjaa vastaajia vastamaan kysymyksiin. Tämän tutkimuksen suorittajat toimittavat avoimet tiedonkeruulomakkeet yksikön osaston hoitajalle. Yksikön osastonhoitaja, jonka kautta rekrytoimme sairaanhoitajat vastaamaan tutkimukseen kyseisellä osastolla, tulee olemaan yhteyshenkilömme. Ennen osallistumistaan sairaanhoitajat täyttävät tietoisen suostumuksen lomakkeen ja vastaavat tämän jälkeen aihekohtaisiin avoimiin kysymyksiin. Kaikkiin kysymyksiin vastaaminen vie aika noin 45 minuuttia- 1 tunnin. Osastolle toimitetaan kaksi eri palautusilaatikkoa (laatikko A suostumuslomakkeelle) ja (laatikko B tiedonkeruulomakkeelle). Vastaajia pyydetään palauttamaan lomakkeet omiin laatikkoihinsa. Palautuslaatikot ja lomakkeet noudetaan tutkimuksen päätyttyä. Aikataulu tietojen keruulle on 2 viikkoa. Tiedonkeruujakson oli tarkoitus tapahtua 1.-15.tammikuuta.

Vapaaehtoisten osallistujien nimiä ei ilmoiteta tiedonkeruuasiakirjoissa nimettömyyden turvaamiseksi. Anonyymin tiedonkeruuasiakirjan paperiversio kerätään ja säilytetään turvallisesti vain opinnäytetyön ohjaajan ja kahden kirjoittajan saatavilla. Toteutamme tiedonkeruussa ja käsittelyssä EU:n vuoden 2016 GDPR-asetuksen mukaisesta tietoturvatasoa. Asiakirjat, tietoisen suostumuksen lomake ja ainestokeruulomake tuhotaan pysyvästi, kunnes tutkimus on arvioitu ja saatettu päätökseen, kuitenkin viimeistään 6 kuukauden kuluttua tutkimuksen julkaisemisesta. Vastaajien henkilökohtaisia tunnistetietoja ei tallenneta mihinkään tietokantoihin tietojen luottamuksellisuuden ja osallistujan nimettömyyden

varmistamiseksi. Näin pyyritään suojelemaan osallistujien anonymiteettiä ja kunnioittamaan salassapitovelvollisuutta. Kun opinnäytetyö on valmis, se julkaistaan Theseus-tietokannassa.

Tämän tutkimuksen avulla toivomme voivamme tuottaa parempaa ja syvällisempää ymmärrystä COVID-19-pandemian aiheuttamasta kuormituksesta terveydenhuollossa, erityisesti sairaanhoitajien kokonais-valtaisista kokemuksista, heidän työhyvinvoinnistaan ja selviytymiskeinoistaan. Osallistumisenne olisi erityisen tärkeää ja olisimme kiitollinen osallistumisestanne. Pyydämme ystävällisesti osallistumaan opinnäytetyömme.

Allekirjoittamalla tämän suostumuslomakkeen suostun vapaaehtoisesti osallistumaan tutkimukseen. Olen hankkinut riittävästi tietoa tutkimuksen tarkoituksesta ja minulla oli riittävästi aikaa harkita osallistumistani tutkimukseen, joten annan täyden luvan käyttää tuottamaani ainestoa tutkimuksen tarkoituksiin.

Allekirjoitus Päivämäärä

Appendix 3: Questionnaires to find out the experiences of nurses during COVID-19 pandemic.

What were your feelings on hearing about the infectious COVID-19 disease and working with people infected?

Miltä sinusta tuntui kuulla COVID-19 tartuntataudista ja työskennellä tartunnan saaneiden kanssa?

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Could you describe your emotions during the COVID-19 pandemics?

Voisitko kuvailla tunteitasi COVID-19 pandemian ajasta?

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How was the work pressure in your ward during COVID-19 pandemics?

Millainen työpaine osastollasi oli COVID-19 pandemian aikana?

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Describe how the workload affected you?

Kuvaile, miten työmäärä vaikutti sinuun?

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How did you balance your time and workload during those times?

Miten olet tasapainotellut ajan ja työmäärän välillä koronapandemian aikana?

What obstacles were there in adherence to COVID-19 infection prevention guidelines during your work?

Mitä esteitä oli COVID-19-infektioiden ehkäisyyn liittyvien ohjeiden noudattamisessa työssä?

How did COVID-19 affect you and your work?

Miten COVID-19 vaikuttanut sinuun ja työhösi?

What kind of collegial support did you get from your co-workers?

Millaiset kollegiaaliset tuet sait työtovereiltasi?

What kind of support did you get from the managers to enhance the occupational safety and well-being during COVID-19 crisis?

Minkälaista tukea sait esimiehiltä työturvallisuuden ja hyvinvoinnin edistämiseksi COVID-19 kriisin aikana?

What were your personal coping mechanisms to tide over the threats associated with COVID-19?

Mitkä olivat henkilökohtaiset selviytymismekanismi COVID-19: een liit yvien uhkien torjumiseksi?

What factors motivated you to face COVID-19 crisis at your workplace?

Mitkä tekijät motivoivat sinua kohtaamaan COVID-19 kriisin työpaikallasi?

What coping strategies did you and your colleagues adopt during these difficult COVID-19 times?

Minkäläisiä selviytymisstrategioita sinä ja kollegasi omaksuitte näiden vaikeiden COVID-19 aikana?

How did organizational strategies help you build resilience at workplace during COVID-19 crisis?

Miten organisaation strategiat auttoivat sinua rakentamaan joustavuutta työpaikallasi COVID-19 kriisin aikana?

_____

What were the efforts made by the managers regarding the prevention and infection control measures for COVID-19 in your workplace settings?

Mitä toimenpiteita johtajat tekivat COVID-19: n ehkäisy ja infektiotorjuntatoimenpiteissä työpaikallasi?

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According to your experiences, what suggestions can you give in regard to enhance the well-being of nurses during COVID-19 crisis?

Kokemustesi perusteella, mitä ehdotuksia annat sairaanhoitajien hyvivoinnin edistämiseen koronakriisin aikana?

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Finally, what suggestion would you like to give to the managers to enhance the nurse well-being at work during current COVID-19 situation?

Lopuksi, mitä ehdotuksia haluaisit antaa johtajille hoitajien työhyvinvoinnin edistämiseksi nykyisessä koronatilanteessa?

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Appendix: 4 Thesis Timeframe

Thesis timeframe	
Discussion on possible Thesis topic	Early February 2020
Confirmation on Thesis Topic	May 2020
Presentation on Topic analysis	3rd June /10th June
Presentation on Thesis Plan	19th August
Data collection	February 2021
Data Analysis	February-March-April
Final Thesis presentation	May 2021